

PLAN AND PROFILE OF

IN THE TOWN OF

FEDERAL AID PROJECT CM-001S(062)X

INDEX

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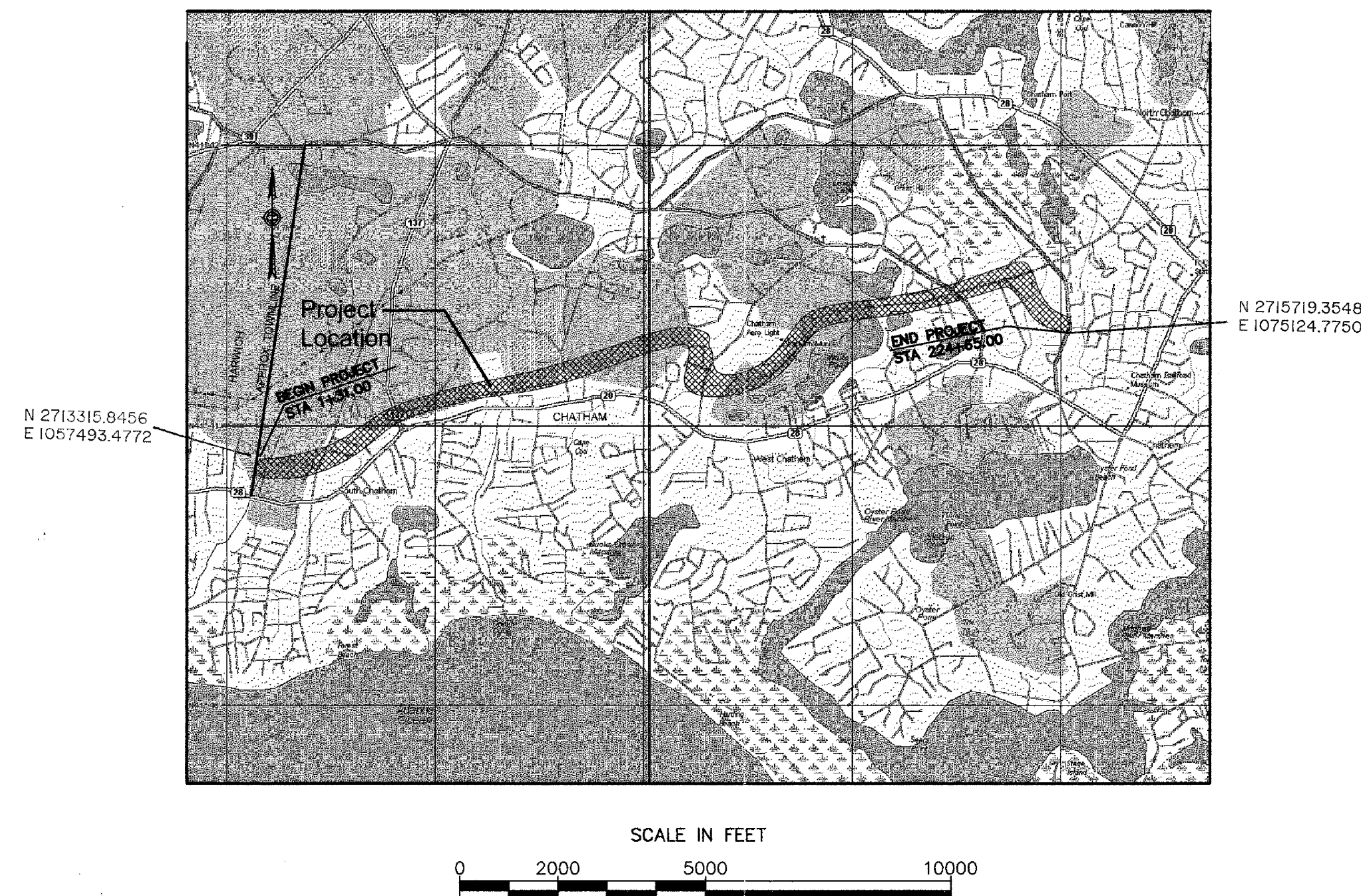
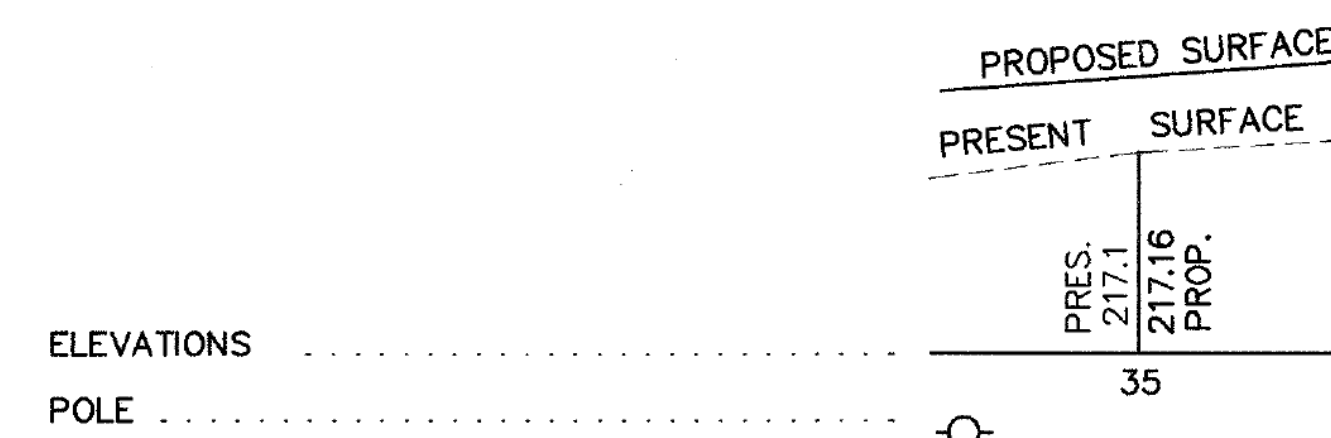
THE 1988 STANDARD SPECIFICATIONS FOR HIGHWAY AND BRIDGES, AND THE ENGLISH SUPPLEMENTAL SPECIFICATIONS DATED NOVEMBER 8, 2000, THE 1977 CONSTRUCTION STANDARDS AND THE SUPPLEMENTAL DRAWINGS DATED DECEMBER 2001, THE 2000 "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREETS AND HIGHWAYS", THE 1990 "STANDARD DRAWING FOR SIGNS AND SUPPORTS" AND THE AMERICAN STANDARD FOR NURSERY STOCK (ANSI Z-60.1) DATED 1968 WILL GOVERN.

DESIGN DESIGNATION
BICYCLE TRAIL

DESIGN SPEED	20 M.P.H.
ADT (1999)	N/A
ADT (2019)	N/A
K	N/A
D	N/A
T (PEAK HOUR)	N/A
T (AVERAGE DAY)	N/A
DHV	N/A
DDHV	N/A

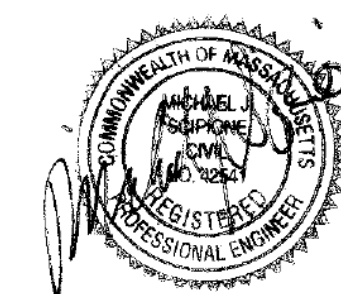
CONVENTIONAL SIGNS

COUNTY, CITY, OR TOWN BOUNDARY _____
COUNTY, CITY, OR TOWN SIDE LINE _____
FENCE LINE _____
BASE LINE OR SURVEY LINE N14°50'04"W 35' 510.73'
RIGHT OF WAY LINE _____
CULVERT [-----]



LENGTH OF PROJECT = 22,334.00 FT = 4.230 MILES

PS&E SUBMISSION



DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED


DIVISION ADMINISTRATOR Date

MASS HIGHWAY

**MASSACHUSETTS
HIGHWAY DEPARTMENT**

RECOMMENDED FOR APPROVAL

Thomas F. Borden, P.E. 9/11/02
CHIEF ENGINEER Date

APPROVED 9/11/02


 MHD COMMISSIONER Date

Wayne R 9/11/02

 9/11/02
ASSOCIATE COMMISSIONERS Date

N: \CAD\LAND PROJECTS\1806_BSC\FINAL-100R\PLANS\01TITLE.DWG

WESTON & SAMPSON ENGINEERS INC.

ELEVATIONS REFER TO U.S.C. & G.S. MEAN SEA LEVEL DATUM OF 1929

GENERAL NOTES

1. THE LOCATIONS OF EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND, ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND AND ABOVE GROUND UTILITIES.
2. WHERE AN EXISTING UTILITY IS FOUND TO CONFLICT WITH THE PROPOSED WORK, THE LOCATION, ELEVATION AND SIZE OF THE UTILITY SHALL BE ACCURATELY DETERMINED WITHOUT DELAY BY THE CONTRACTOR, AND THE INFORMATION FURNISHED TO THE ENGINEER FOR RESOLUTION OF THE CONFLICT.
3. AREAS OUTSIDE THE LIMITS OF PROPOSED WORK DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED BY THE CONTRACTOR TO THEIR ORIGINAL CONDITION AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL RESTORE THE EXISTING SURFACE PAVEMENTS AND TURF DISTURBED BY THE PROPOSED WORK AND SHALL PATCH ALL HOLES RESULTING FROM THE REMOVAL OF FOUNDATIONS WITH MATERIALS SIMILAR TO THE EXISTING.
5. THE TERM "PROPOSED" (PROP.) MEANS WORK TO BE CONSTRUCTED USING NEW MATERIALS OR, WHERE APPLICABLE, REUSING EXISTING MATERIALS IDENTIFIED AS "REMOVE AND RELOCATE" (R&R).
6. JOINTS BETWEEN NEW BITUMINOUS CONCRETE ROADWAY PAVEMENT AND SAW CUT EXISTING PAVEMENT SHALL BE SEALED WITH BITUMEN AND BACKSANDS.
7. ALL EXISTING SIGNS WITHIN THE PROJECT LIMITS SHALL BE RETAINED UNLESS NOTED OTHERWISE ON THE DRAWINGS.
8. THE CONTRACTOR SHALL NOTIFY "DIG SAFE" 72 HOURS PRIOR TO THE INITIATION OF WORK AND SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY STATE/LOCAL PERMITS AND/OR APPROVALS. DIG SAFE 1-888-344-7233

GENERAL SYMBOLS

EXISTING

CB □ (OR GI)
CBCI □ (OR GICI)

○ EHH
○ EMH
○ TMH
○ WMH
○ SMH
○ DMH
○ GG
○ WG
○ CS
▽ FA
○
*
○

— D —
— S —
— E —
— G —
— W —
— T —

□ MB
□ MHB,SB,CB

LABEL / DATE
NAME

12 N00°00'00"E
+57.59
PC



SEE PLANS

— — — — —

PROPOSED

CB ■ (OR GI)

● EHH
● EMH
● TMH
● WMH
● SMH
● DMH
● GG
● WG
● CS
▽ FA
● PM
*
●

— D —
— S —
— E —
— G —
— W —
— T —

■ MB
■ MHB,SB,CB

LABEL / DATE

N00°00'00"E
+57.59
PC



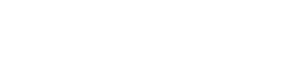
SEE PLANS

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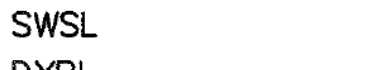
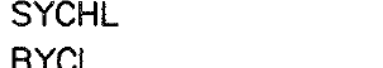
CATCH BASIN (OR GUTTER INLET)
CATCH BASIN (OR GUTTER INLET) WITH CURB INLET
CURB (OR BERM)-TYPE NOTED
EDGE OF ROAD
ELECTRIC HANDHOLE (NUMBER AS NOTED)
ELECTRIC MANHOLE
TELEPHONE MANHOLE
WATER MANHOLE
SEWER MANHOLE
DRAINAGE MANHOLE
GAS GATE
WATER GATE
CURB STOP
HYDRANT
FIRE ALARM BOX
PARKING METER
STREET LIGHT
WOODEN POLE
GUY POLE
DRAIN PIPE
SEWER MAIN
ELECTRIC DUCT
GAS MAIN
WATER MAIN
TELEPHONE DUCT
MAIL BOX
HIGHWAY GUARD (TYPE NOTED)
HIGHWAY / PROPERTY BOUND (TYPE NOTED)
CITY OR TOWN OR COUNTY LAYOUT LINE
CITY,TOWN OR COUNTY BOUNDARY
STATE BOUNDARY
BASE OR SURVEY LINE
CENTERLINE OF CONSTRUCTION
WHEELCHAIR RAMP (WCR)
TREE (SIZE AND TYPE NOTED)
FENCE (SIZE AND TYPE NOTED)
EASEMENT LINE
SILT FENCE & HAY BALES

PAVEMENT MARKINGS AND SIGNING SYMBOLS

EXISTING



PROPOSED



DIRECTION OF FLOW
NO PARKING ANYTIME
PARKING RESTRICTIONS (AS NOTED)
PAVEMENT ARROW AND LEGEND
CROSSWALK, 2-12" WHITE LINES (12" WIDTH)
STOP LINE, 12" WHITE LINE 4' BEHIND CW (TYP.)
SIGN AND POST
DELINEATOR
SCHOOL ZONE
SOLID WHITE LANE LINE - 4"
BROKEN WHITE LANE LINE - 4"
SOLID WHITE CHANNELIZING LINE - 4" EXC. AS NOTED
SOLID YELLOW CHANNELIZATION LINE - 8" EXC. AS NOTED
BROKEN YELLOW CENTERLINE - 4"
DOUBLE YELLOW CENTERLINE-2-4" LINES
SOLID YELLOW BARRIER LINE - 4"
SOLID YELLOW EDGE LINE - 4"
SOLID WHITE EDGE LINE - 4"
SOLID WHITE SHOULDER LINE - 4"
DOUBLE YELLOW BORDER LINE - 4"
BROKEN WHITE GUIDE LINE -4"
SOLID WHITE GORE LINE 12" @ 33', (SPACING NOTED)
SOLID YELLOW GORE LINE 12" @ 33', (SPACING NOTED)
SOLID WHITE CHEVRON LINES 12", (SPACING NOTED)
SOLID WHITE SHOULDER LINE - 4"

ABBREVIATIONS

ABAN. ABANDON
A.C. ASPHALTIC CONCRETE
A.C.C.M. PIPE ASPHALT COATED
CORRUGATED METAL PIPE
ADJ. ADJUST
APPR. APPROACH
BD. BOUND
BIT. CONC. BITUMINOUS CONCRETE
B. BASELINE
BLDG. BUILDING
B.M.A. BITUMINOUS MACADAM
B.M. BENCH MARK
B.O. BY OTHERS
BR. BRIDGE
CB CATCH BASIN
CBCI CATCH BASIN WITH CURB INLET
C.C. CEMENT CONCRETE
C.C.M. CEMENT CONCRETE MASONRY
C.C.R. CURB CUT RAMP
CEM. CEMENT
C.I. CURB INLET
C.I.T. CHANGE IN TYPE
C.I.P. CAST IRON PIPE
CL. CLASS (CONCRETE, EXCAVATION ETC.)
C. CENTER LINE
C. CONST. CENTERLINE OF CONSTRUCTION
CMP CORRUGATED METAL PIPE
CSP CORRUGATED STEEL PIPE
CO. COUNTY
CO. BD. COUNTY BOUND
CONC. CONCRETE
CONST. CONSTRUCT(ION)
CULV. CULVERT
CY CUBIC YARDS
DI DROP INLET
D.I.P. DUCTILE IRON PIPE
DR. DRIVE
E. EXTERNAL
ELEV. (OR EL.) ELEVATION
EMB. EMBANKMENT
ENT. ENTRANCE
EXC. EXCAVATION
EXIST.(OR EX.) EXISTING
FDN. FOUNDATION
F&G FRAME AND GRATE
F.L. (OR F) FLOW LINE
FLDSTN. FIELDSTONE
GAR. GARAGE
GD. GROUND
GG GAS GATE
GI GUTTER INLET
G.I.P. GALVANIZED IRON PIPE
GRAV. GRAVEL
GRAN. GRANITE
GRD. GUARD
HDW. HEADWALL
HO. HOUSE
HOR. HORIZONTAL
HYD. HYDRANT
INV. INVERT
I.T. INTERSECTION OF SLOPE
OR PROFILE GRADE LINES
JCT. JUNCTION
L. LENGTH OF CURVE
L.B. LEACHING BASIN
L.P. LIGHT POLE
LT. LEFT
M.B. MAIL BOX

MH MANHOLE
M.H.B. MASSACHUSETTS
HIGHWAY BOUND
N.I.C. NOT IN CONTRACT
PAVT. PAVEMENT
P.C. POINT OF CURVATURE
P.C.C. POINT OF COMPOUND CURVATURE
P.I. POINT OF INTERSECTION
P. PROPERTY LINE
P.O.C. POINT ON CURVE
P.O.T. POINT ON TANGENT
P.R.C. POINT OF REVERSE CURVATURE
PROJ. PROJECT
PROP. PROPOSED
P.T. POINT OF TANGENCY
P.V.I. POINT OF VERTICAL INTERSECTION
P.V.C. POINT OF VERTICAL CURVATURE
P.V.T. POINT OF VERTICAL TANGENCY
P.W.W. PAVED WATERWAY
R. RADIUS OF CURVATURE
R.C. REINFORCED CONCRETE
R.C.P. REINFORCED CONCRETE PIPE
RD. ROAD
RDWY. ROADWAY
REM. REMOVE
REMOD. REMODEL
RET. RETAIN
RET. WALL. RETAINING WALL
R.O.W. RIGHT- OF- WAY
R.R. RAILROAD
R&R REMOVE AND RESET
R&S REMOVE AND STACK
RT. RIGHT
R/W RIGHT- OF- WAY
S.B. STONE BOUND
S.BD. SOUTH BOUND
S.D. SUBDRAIN
SEC. SECTION
SECTS. SECTIONS (END SECTION FOR PIPE)
SH. SHEET
SHLD. SHOULDER
SK. SKEW
SMH SEWER MANHOLE
SY SQUARE YARDS
ST. STREET
STA. STATION
S.S.D. STOPPING SIGHT DISTANCE
SURF. SURFACING OR SURFACE
S.W. SIDEWALK
T. TANGENT DISTANCE OF CURVE/
TRUCK PERCENTAGE
TAN. TANGENT
TEMP. TEMPORARY
T.P. TURNING POINT
T.R. TOP OF RAIL
T.S.C. TRAFFIC SIGNAL CONDUIT
TR. SIG. TRAFFIC SIGNAL
V. SPEED (USUALLY DESIGN SPEED)
VAR. VARIABLE
V.C. VERTICAL CURVE
V.C.P. VITRIFIED CLAY PIPE
VERT. VERTICAL
WD. WOOD
W.G. WATER GATE
W.I.P. WROUGHT IRON PIPE
W.M. WATER METER/ WATER MAIN
X-SEC. CROSS SECTION

CHATHAM
CHATHAM RAIL TRAIL

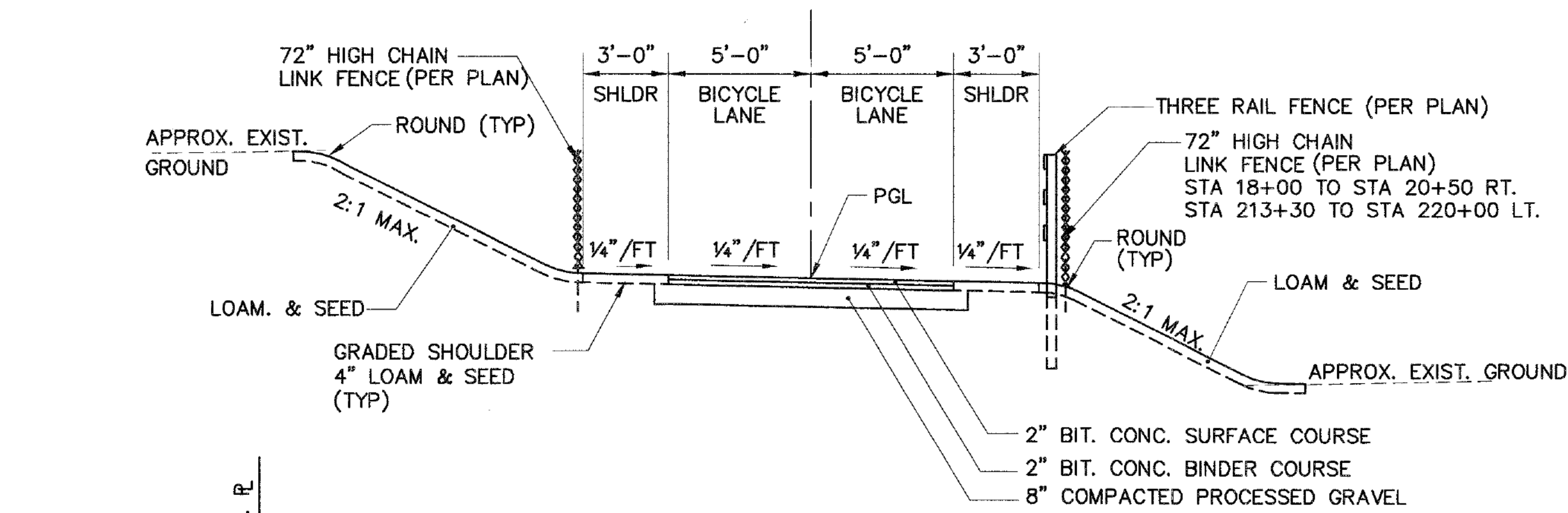
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MASS.	CM-0015(062)X	2002	2	98	
PROJECT FILE NO. 601466					

LEGEND SHEET

CHATHAM CHATHAM RAIL TRAIL

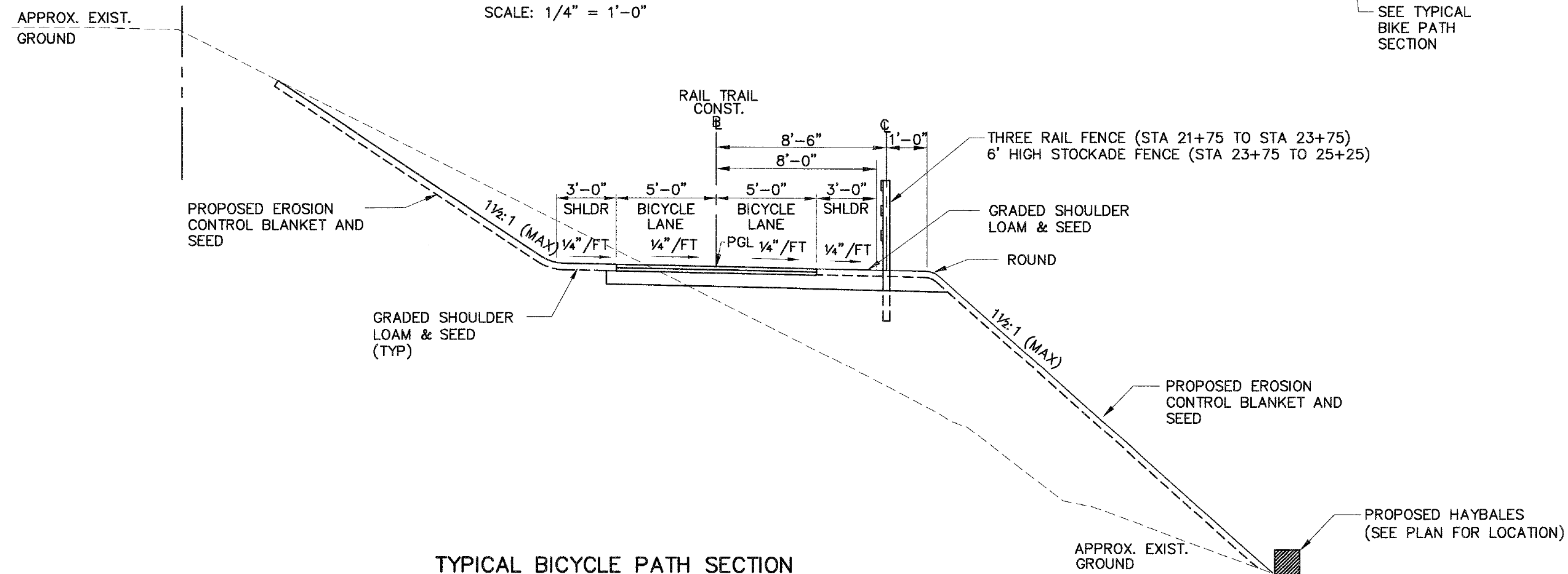
STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	3	98
PROJECT FILE NO. 601466				

TYPICAL SECTIONS & DETAILS



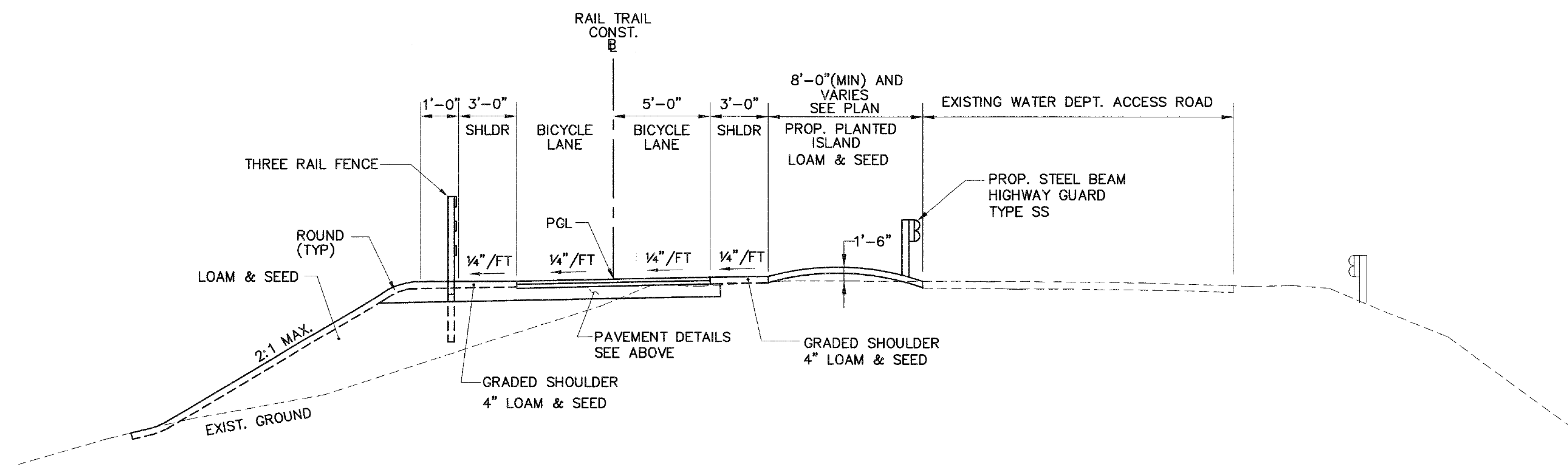
TYPICAL BICYCLE PATH SECTION

SCALE: 1/4" = 1'-0"



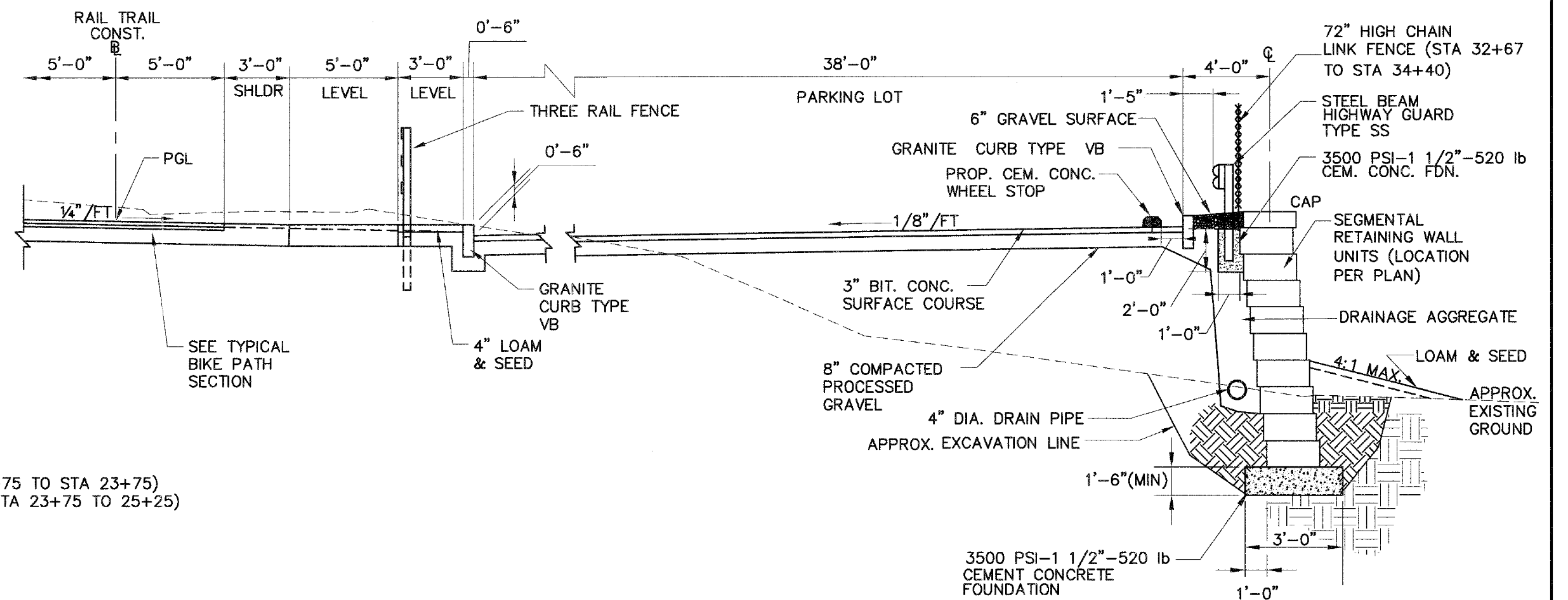
**TYPICAL BICYCLE PATH SECTION
(STA. 21+75 TO STA. 25+25)**

N.T.S.



**WATER DEPARTMENT ACCESS ROAD - BICYCLE PATH SECTION
(STA. 54+00± TO STA. 70+50±)**

SCALE: 1/4" = 1'-0"



**PARKING LOT - BICYCLE PATH SECTION
(STA. 32+65± TO STA. 35+50±)**

SCALE: 1/4" = 1'-0"

PAVEMENT NOTES

PAVEMENT FOR BICYCLE PATH

SURFACE COURSE - 2" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN ONE LAYER; 2" TOP COURSE MATERIAL.
BASE COURSE - 2" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN ONE LAYER; 2" BINDER COURSE MATERIAL.
SUBBASE COURSE - 8" COMPACTED PROCESSED GRAVEL

PAVEMENT FOR GEORGE RYDER ROAD

SURFACE COURSE - 3" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN TWO LAYERS; 1 1/2" TOP COURSE MATERIAL OVER 1 1/2" BINDER COURSE MATERIAL.
BASE COURSE - 4" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1 BASE COURSE MATERIAL PLACED IN ONE LAYER.
SUBBASE COURSE - 4" DENSE GRADED CRUSHED STONE OVER 8" COMPACTED PROCESSED GRAVEL.

WHEELCHAIR RAMPS:

SURFACE COURSE: 4" CEMENT CONCRETE PLACED IN ONE LAYER
FOUNDATION: - 8" PROCESSED GRAVEL.

BITUMINOUS CONCRETE DRIVEWAYS

SURFACE COURSE - 3" 1/2" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN TWO LAYERS; 1 1/2" TOP COURSE MATERIAL OVER 2" BINDER COURSE MATERIAL.
BASE COURSE - NONE
SUBBASE COURSE - 8" COMPACTED PROCESSED GRAVEL

BITUMINOUS CONCRETE PARKING AREAS

SURFACE COURSE - 3 1/2" CLASS I BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN TWO LAYERS; 1 1/2" TOP COURSE MATERIAL OVER 2" BINDER COURSE MATERIAL.
BASE COURSE - NONE
SUBBASE COURSE - 8" COMPACTED PROCESSED GRAVEL.

SLOPE AREAS

4" LOAM BORROW AND HYDROMULCH WITH SEED FOR SLOPES 2:1 OR LESS. FOR SLOPES 2:1 OR GREATER, 4" LOAM WITH EROSION CONTROL BLANKET AND HYDROMULCH WITH SEED.

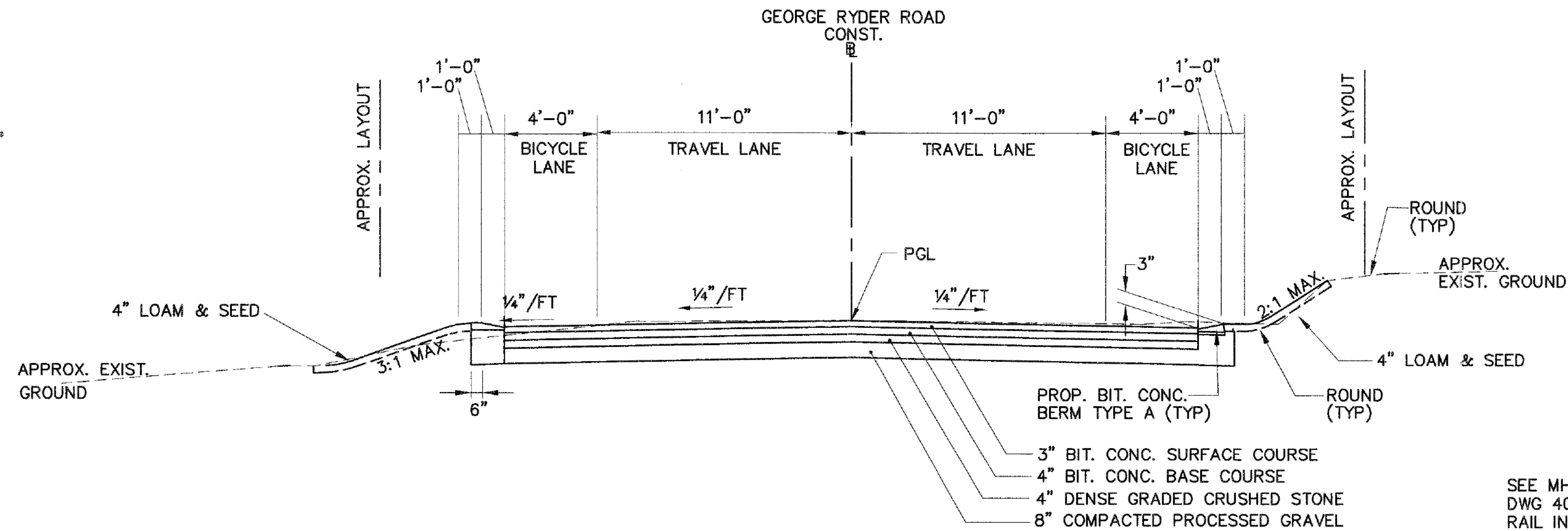
BIT. CONC. SIDEWALKS

SURFACE COURSE - 3" BITUMINOUS CONCRETE PAVEMENT TYPE I-1, PLACED IN TWO 1 1/2" LAYERS
FOUNDATION: - 8" COMPACTED PROCESSED GRAVEL

CHATHAM CHATHAM RAIL TRAIL

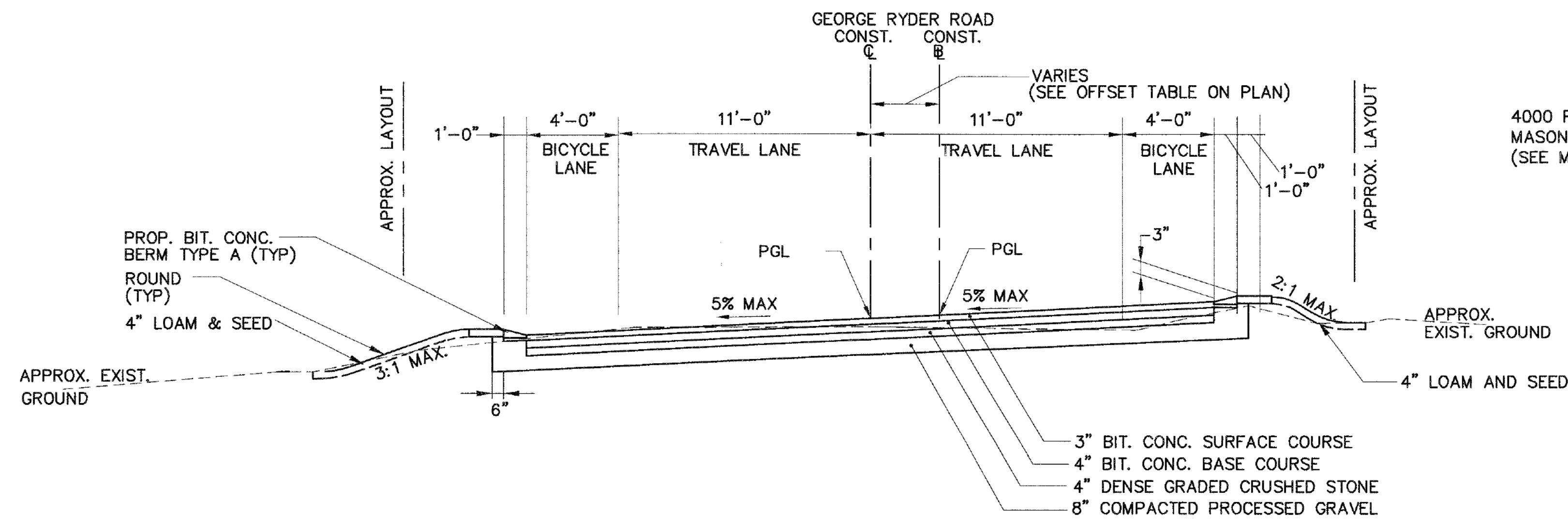
STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	4	98
PROJECT FILE NO. 601466				

TYPICAL SECTIONS & DETAILS



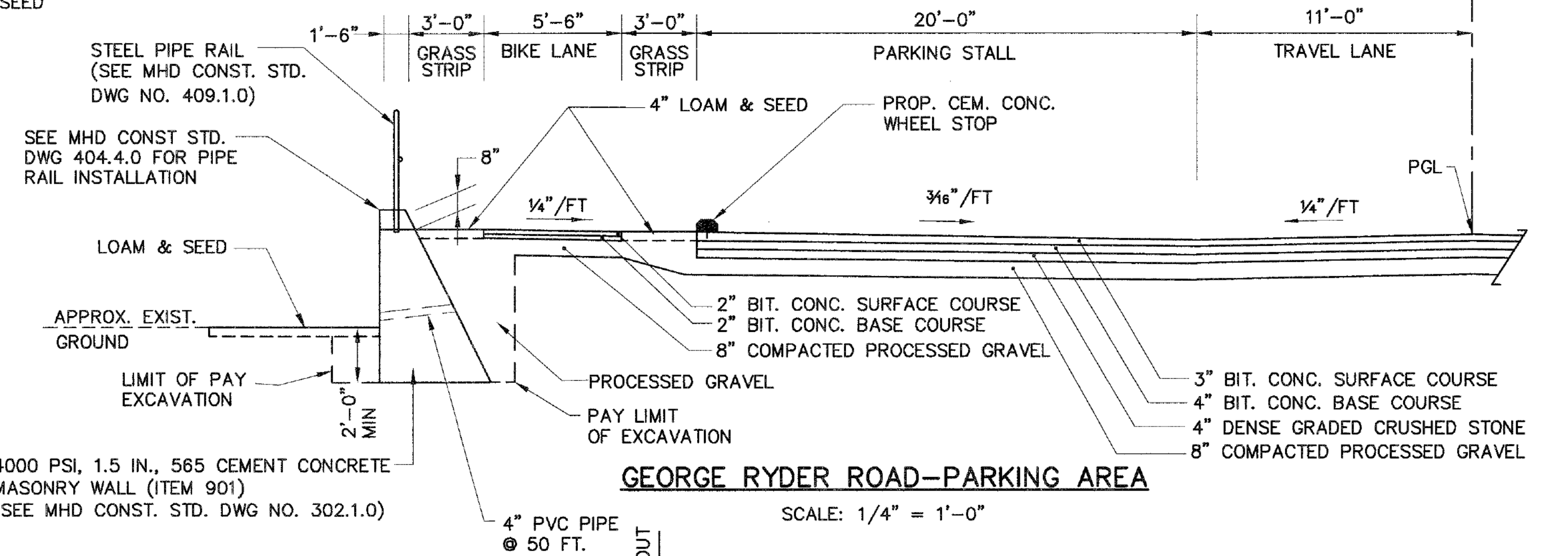
GEORGE RYDER ROAD

SCALE: 1/4" = 1'-0"



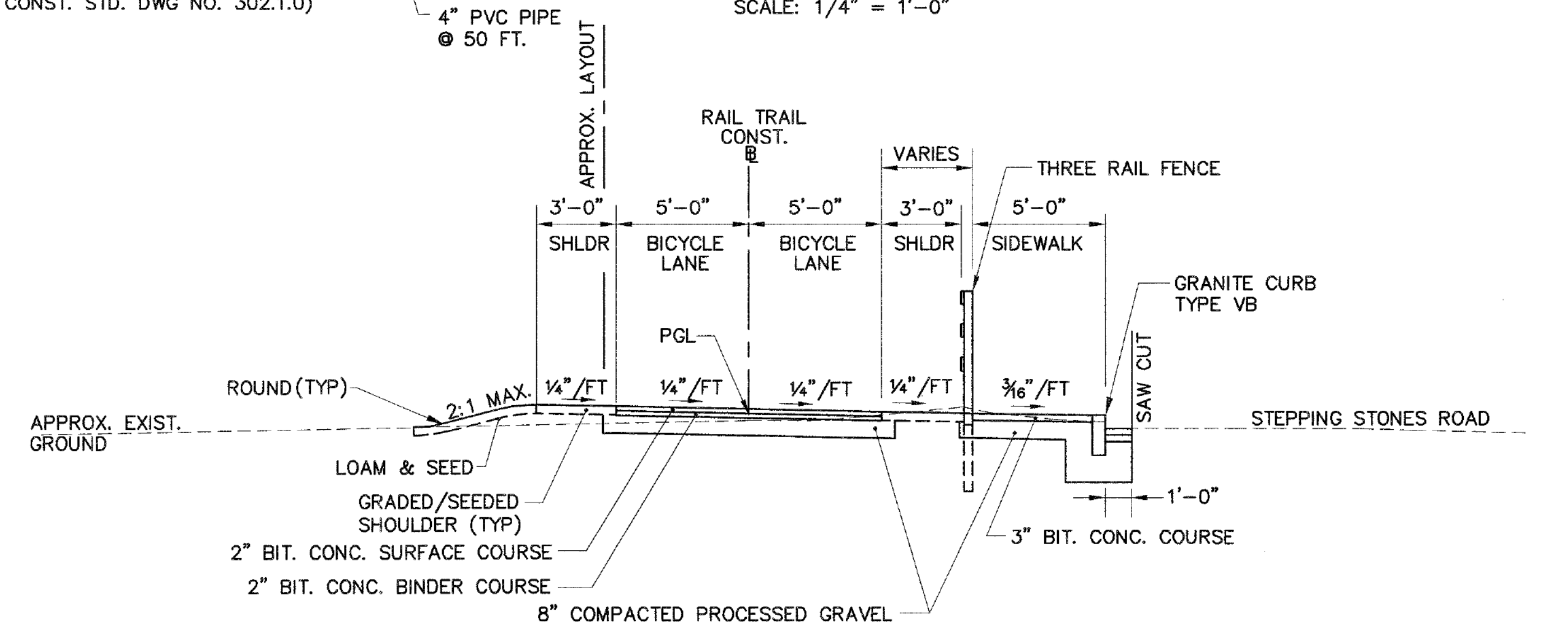
GEORGE RYDER ROAD - SUPERELEVATION SECTION

SCALE: 1/4" = 1'-0"



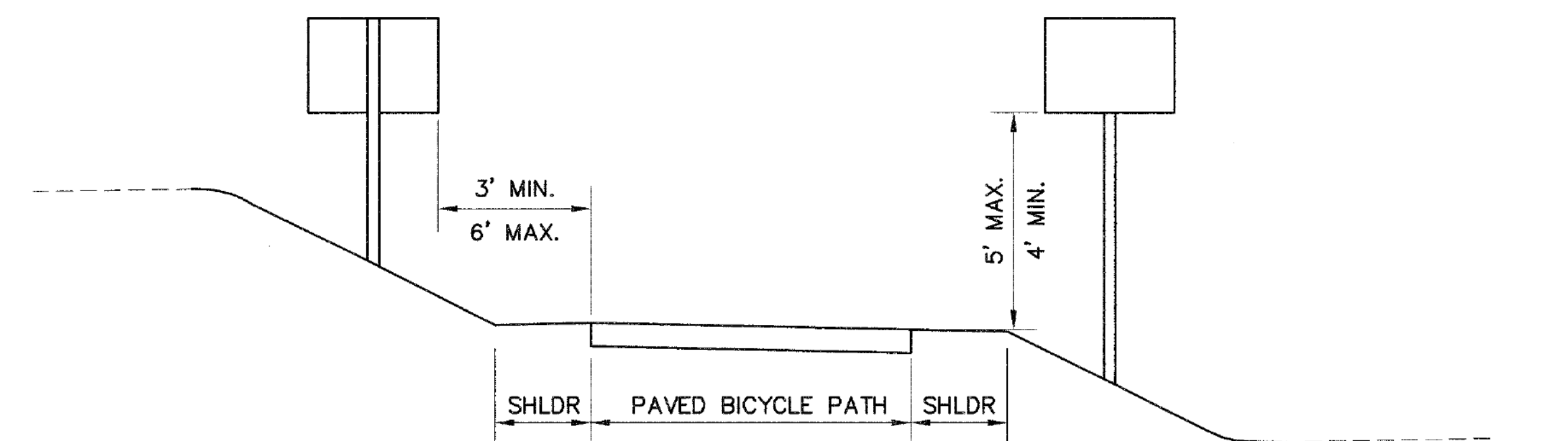
GEORGE RYDER ROAD-PARKING AREA

SCALE: 1/4" = 1'-0"



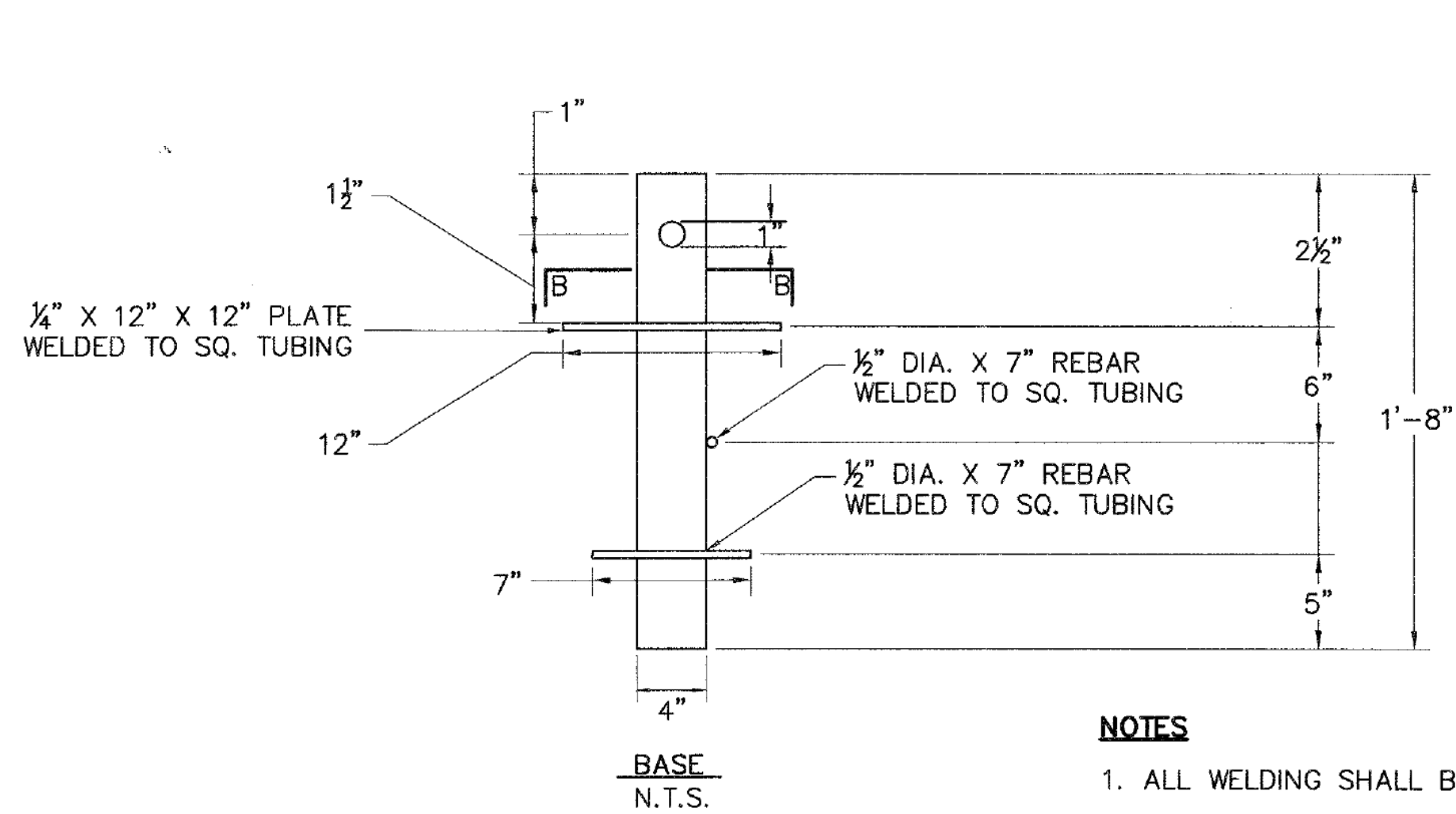
TYPICAL BICYCLE PATH SECTION (STA 205+50± TO STA 207+00±) AT STEPPING STONES ROAD

SCALE: 1/4" = 1'-0"

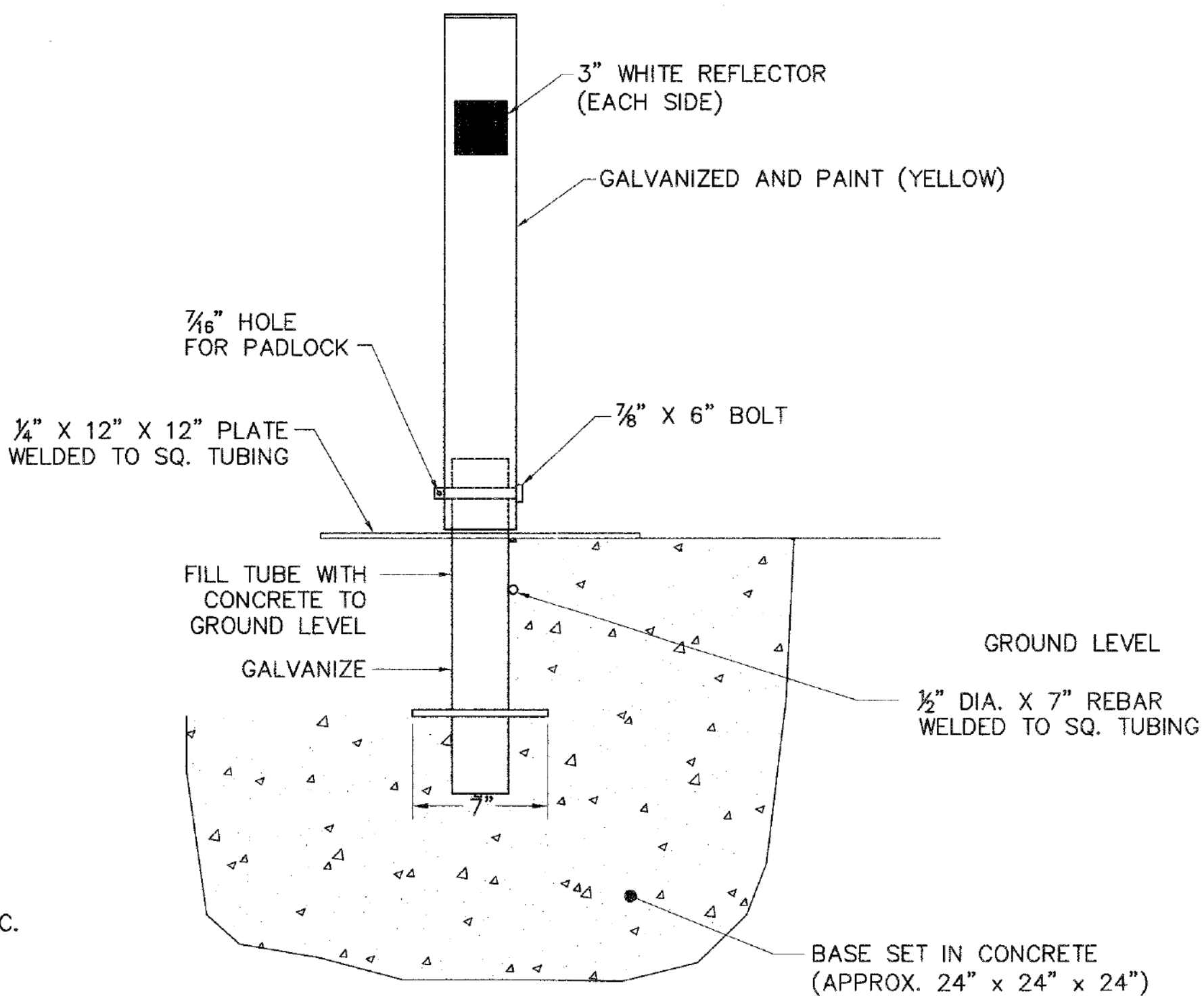


TYPICAL SIGN PLACEMENT FOR BICYCLE PATH

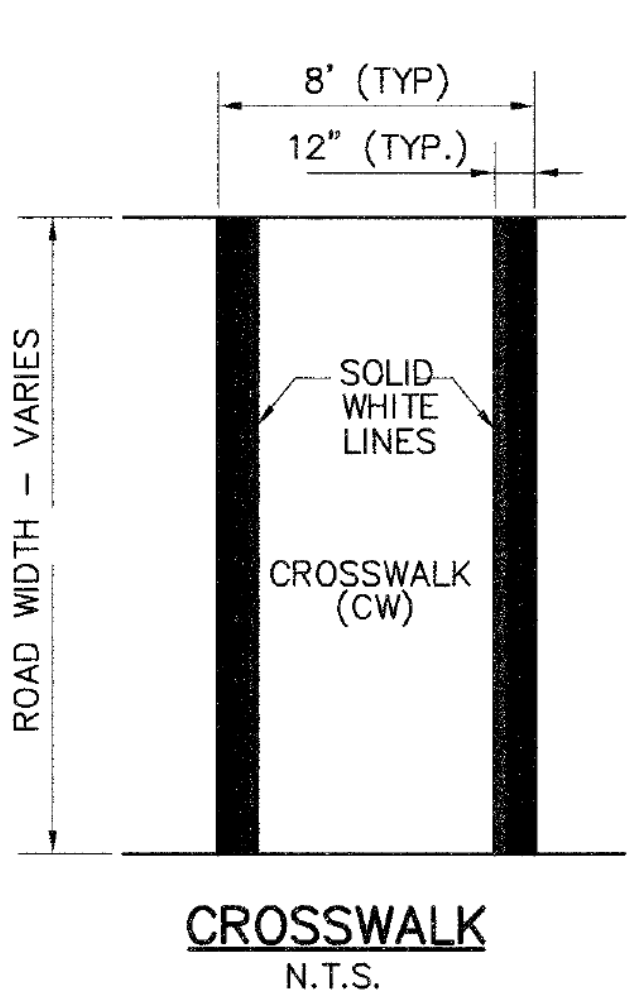
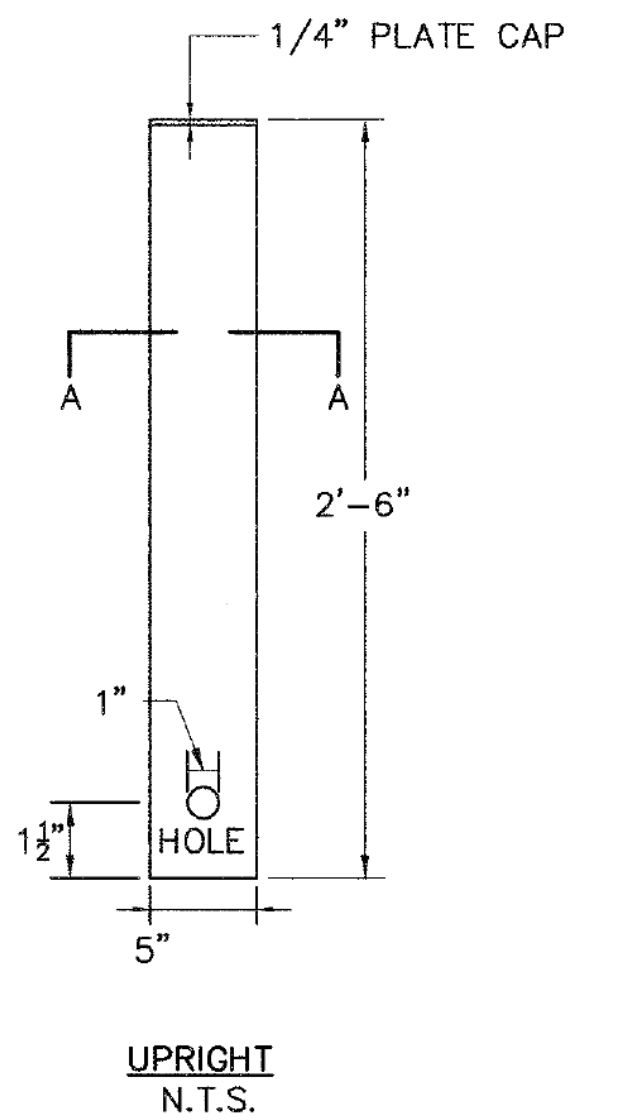
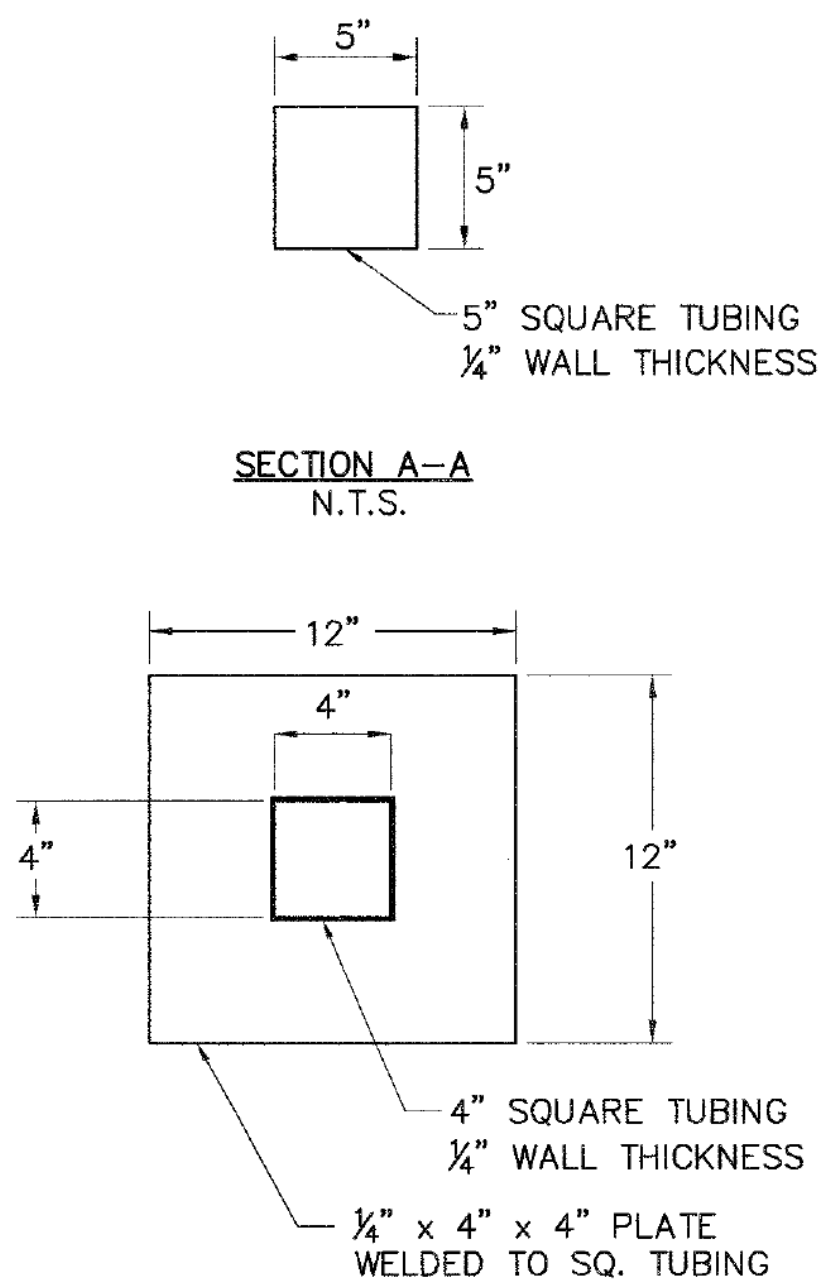
NOT TO SCALE



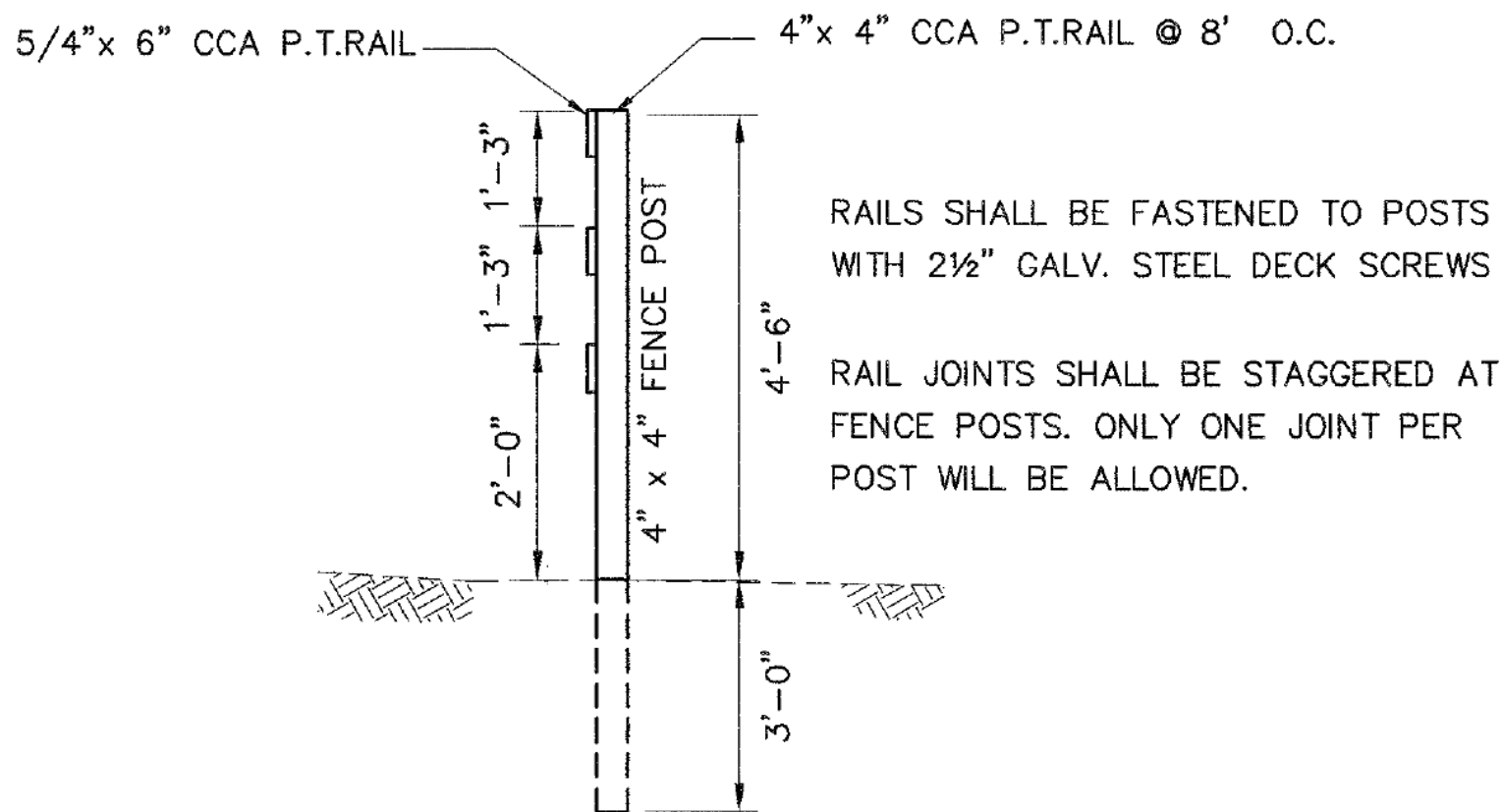
- NOTES**
- ALL WELDING SHALL BE 1/8"
 - BOLTS AND PADLOCK BY THE CONTRACTOR.



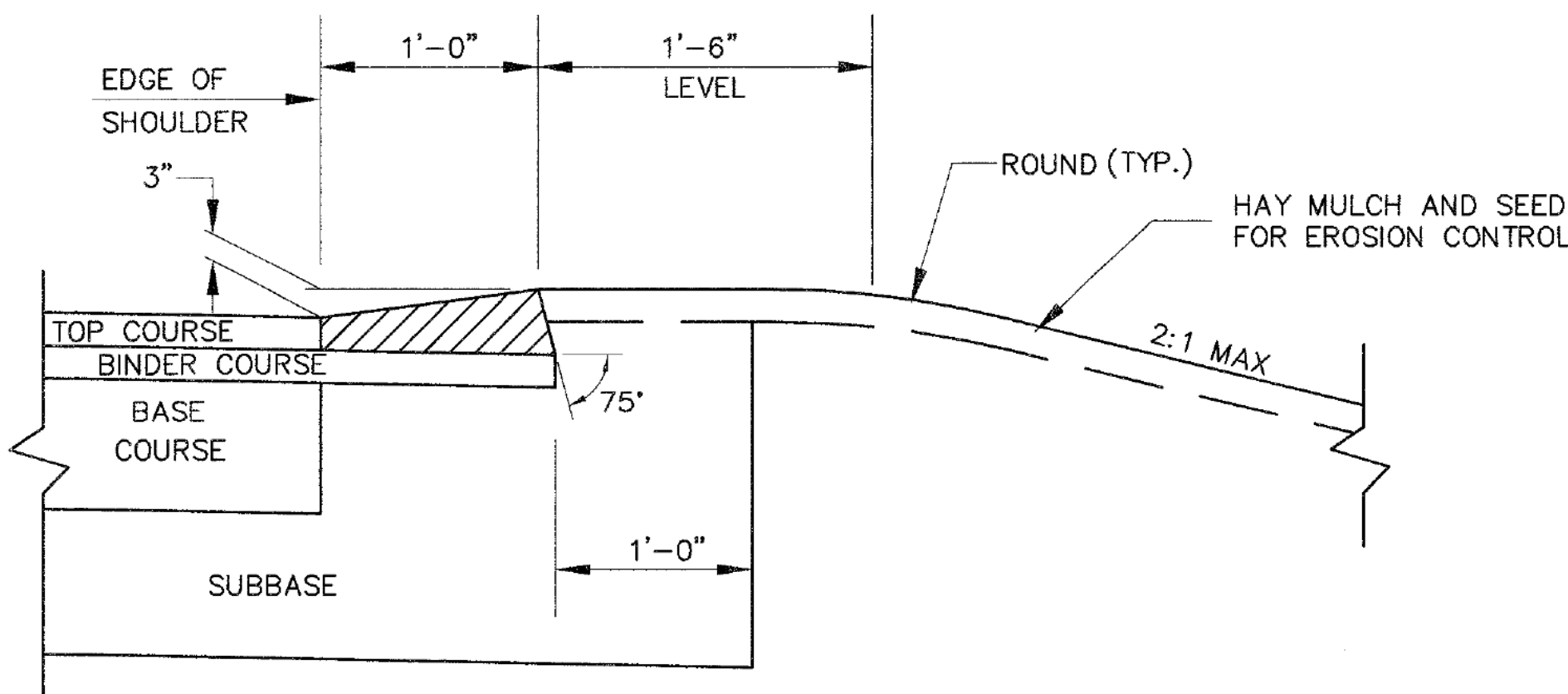
REMOVABLE BOLLARD DETAIL
N.T.S.



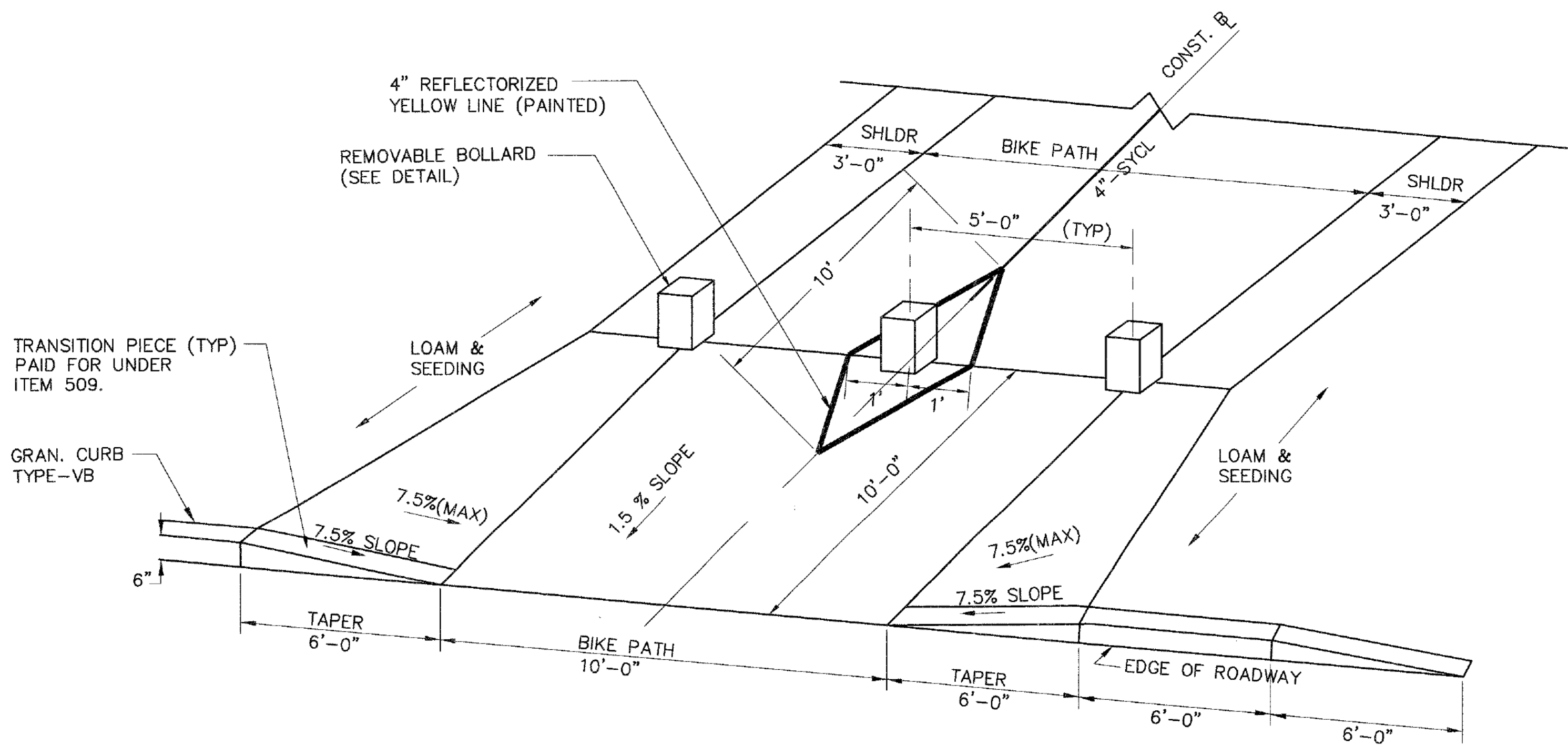
CROSSWALK
N.T.S.



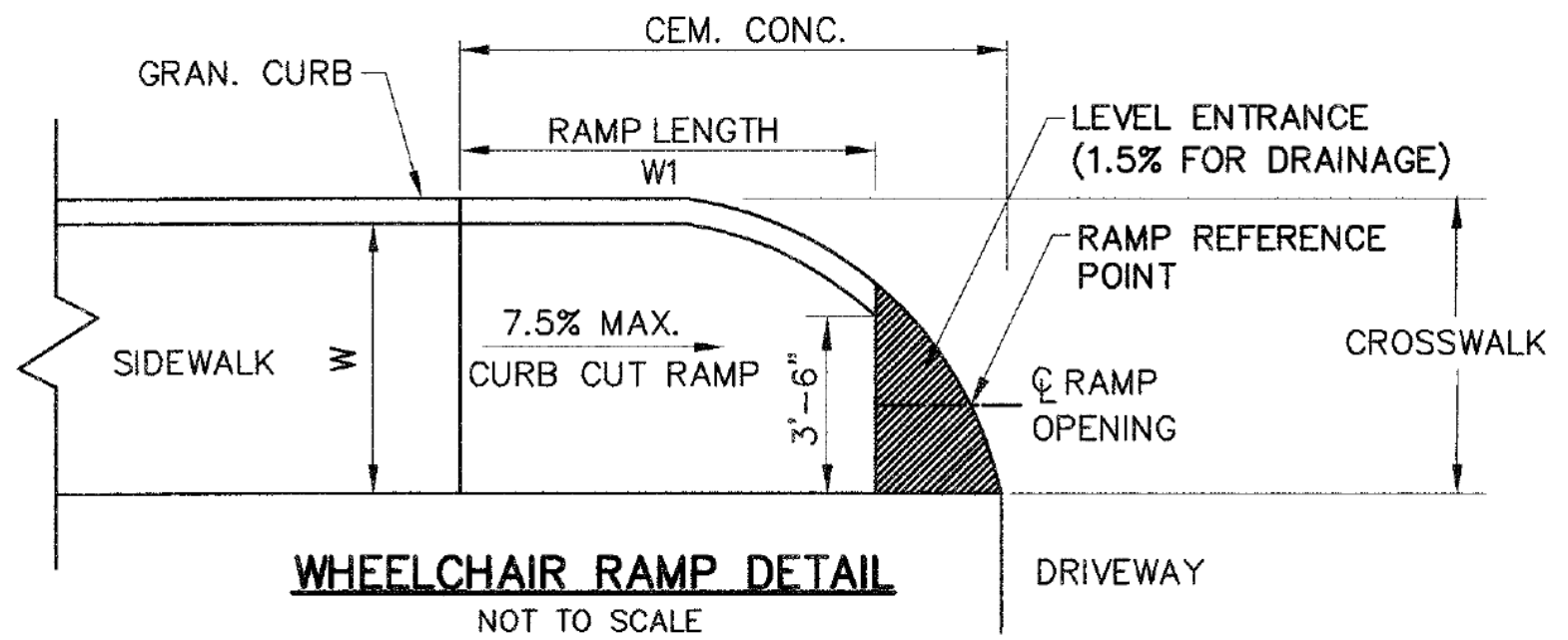
THREE RAIL WOOD FENCE DETAIL
N.T.S.



TYPICAL BERM INSTALLATION
NOT TO SCALE



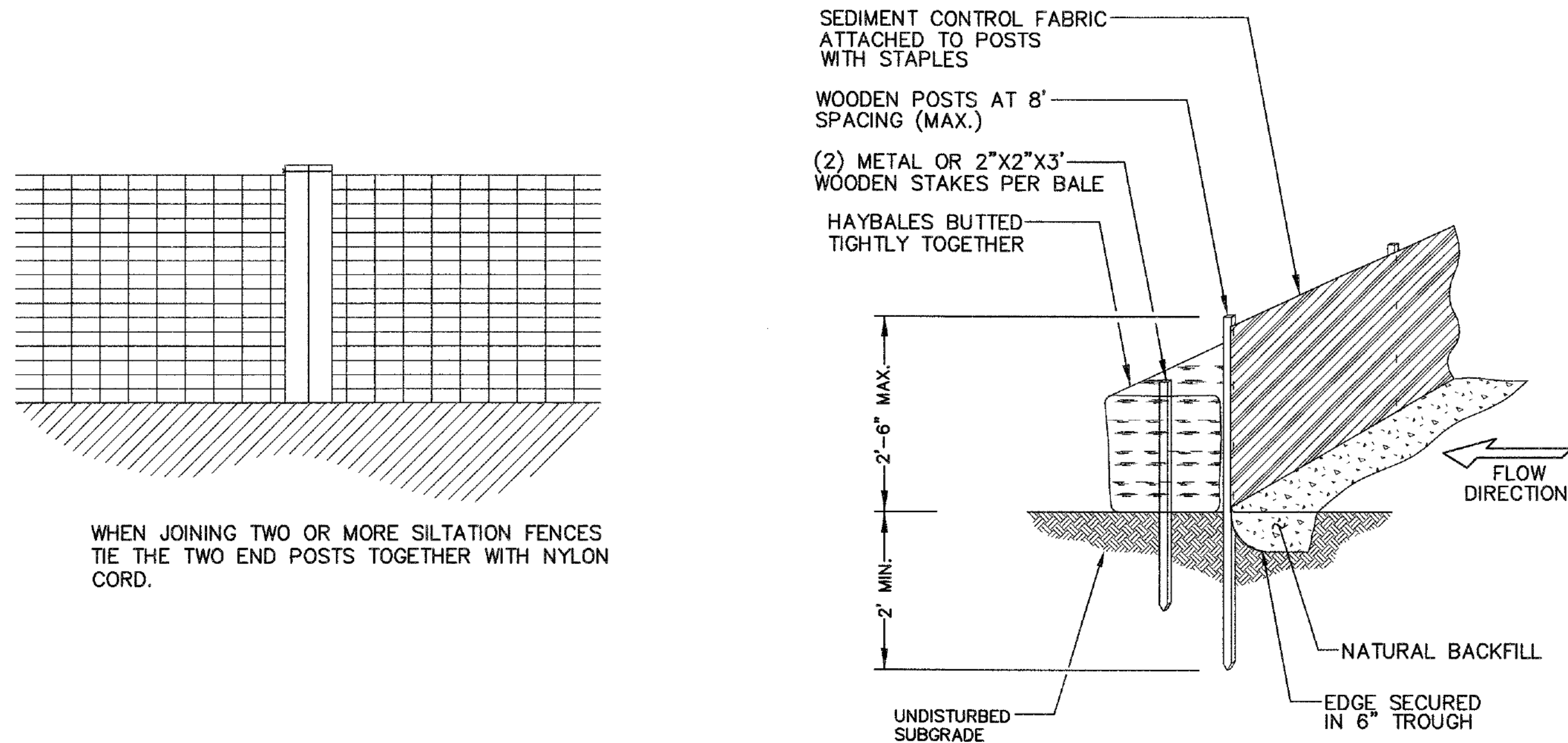
BICYCLE RAMP DETAIL AT ROADWAY CROSSING
N.T.S.



WHEELCHAIR RAMP DETAIL
NOT TO SCALE

CCR #	RAMP REFERENCE POINT		WIDTH OF SIDEWALK W	WIDTH OF OPENING	ROADWAY GUTTER SLOPE	LENGTH OF RAMP (W1)
	STATION	OFFSET				
# 1	206+23.7	11.4'	5'-0"	3'-6"	2.8%	11'
# 2	206+69.4	9.2'	5'-0"	3'-6"	1.8%	9'
# 3	207+02.3	5.0'	5'-0"	3'-6"	1.8%	9'
# 4	207+21.2	27.1'	5'-0"	3'-6"	1.4%	9'

CURB CUT RAMP DETAIL
NOT TO SCALE

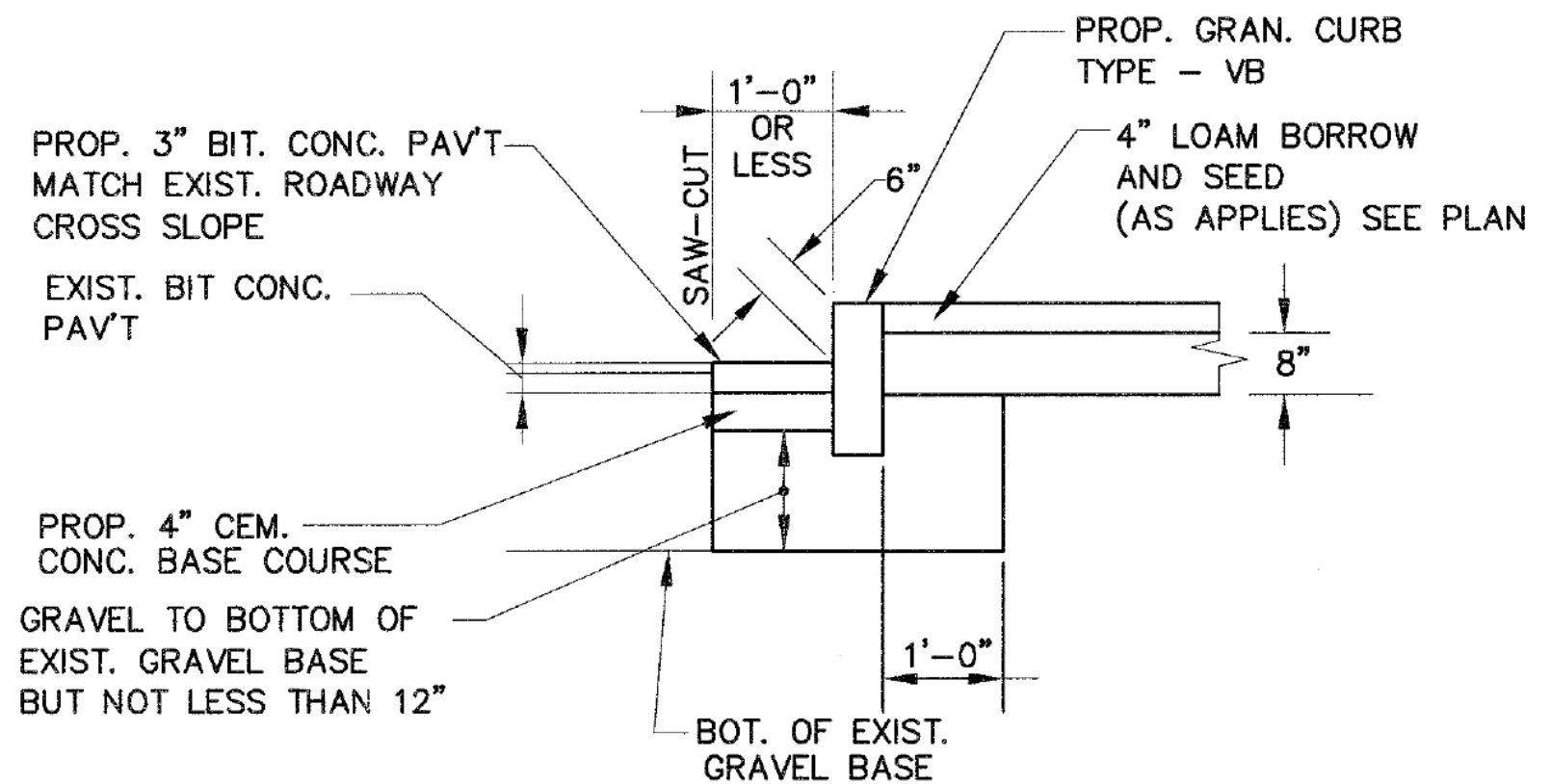


WHEN JOINING TWO OR MORE SILTATION FENCES TIE THE TWO END POSTS TOGETHER WITH NYLON CORD.

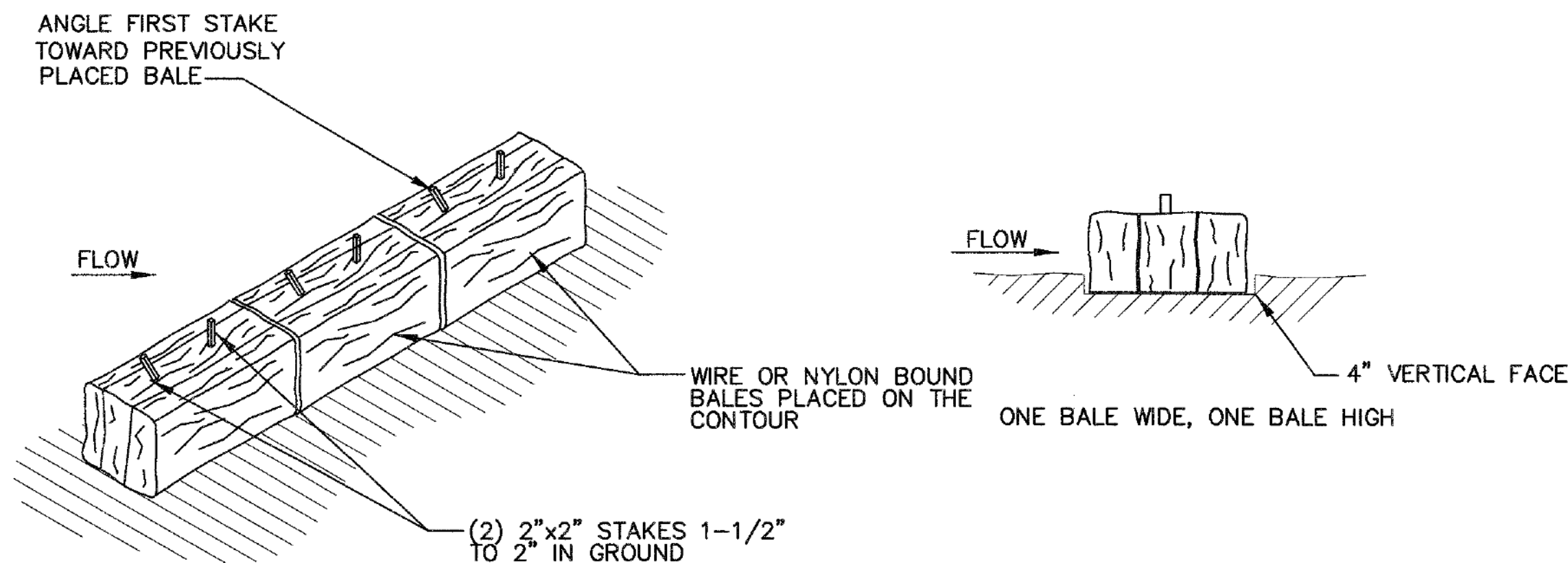
JOINING FENCE
NOT TO SCALE

SILTATION FENCE
NOT TO SCALE

SILTATION BARRIER DETAIL
NOT TO SCALE



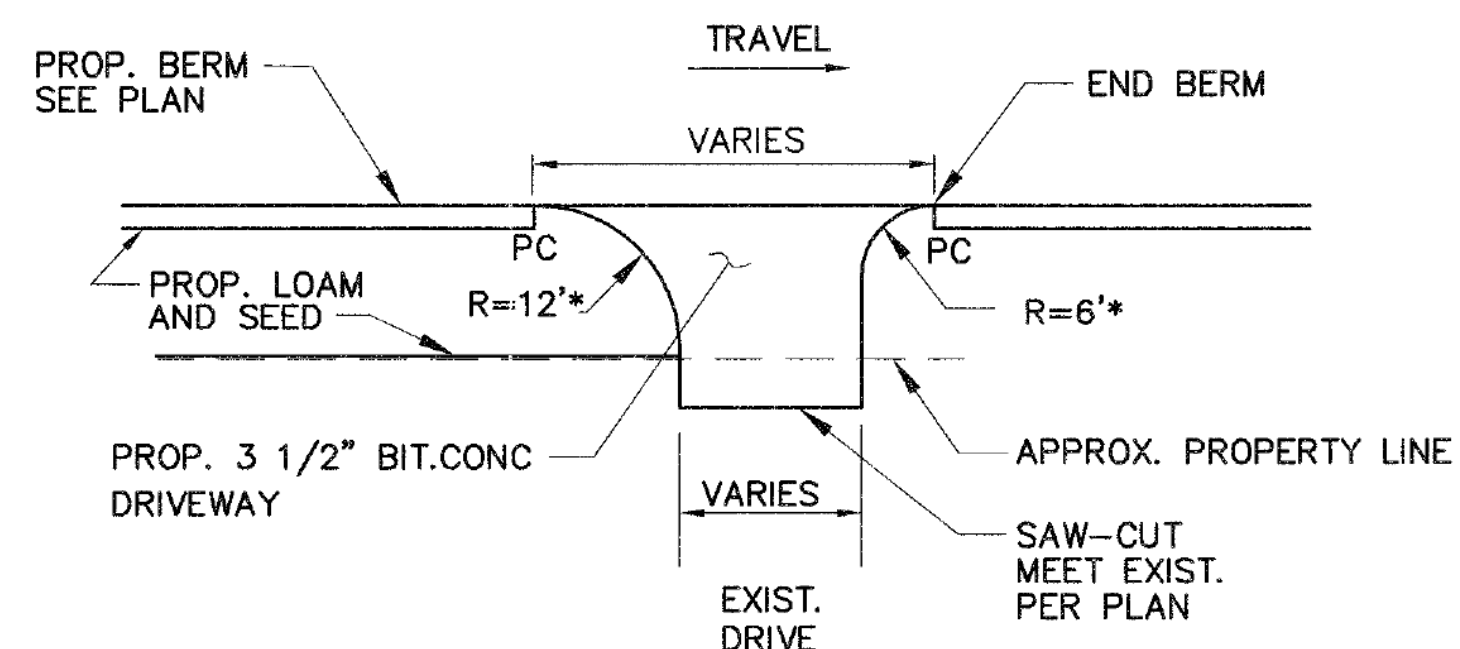
CURB INSTALLATION AT EXISTING PAVEMENT
NOT TO SCALE



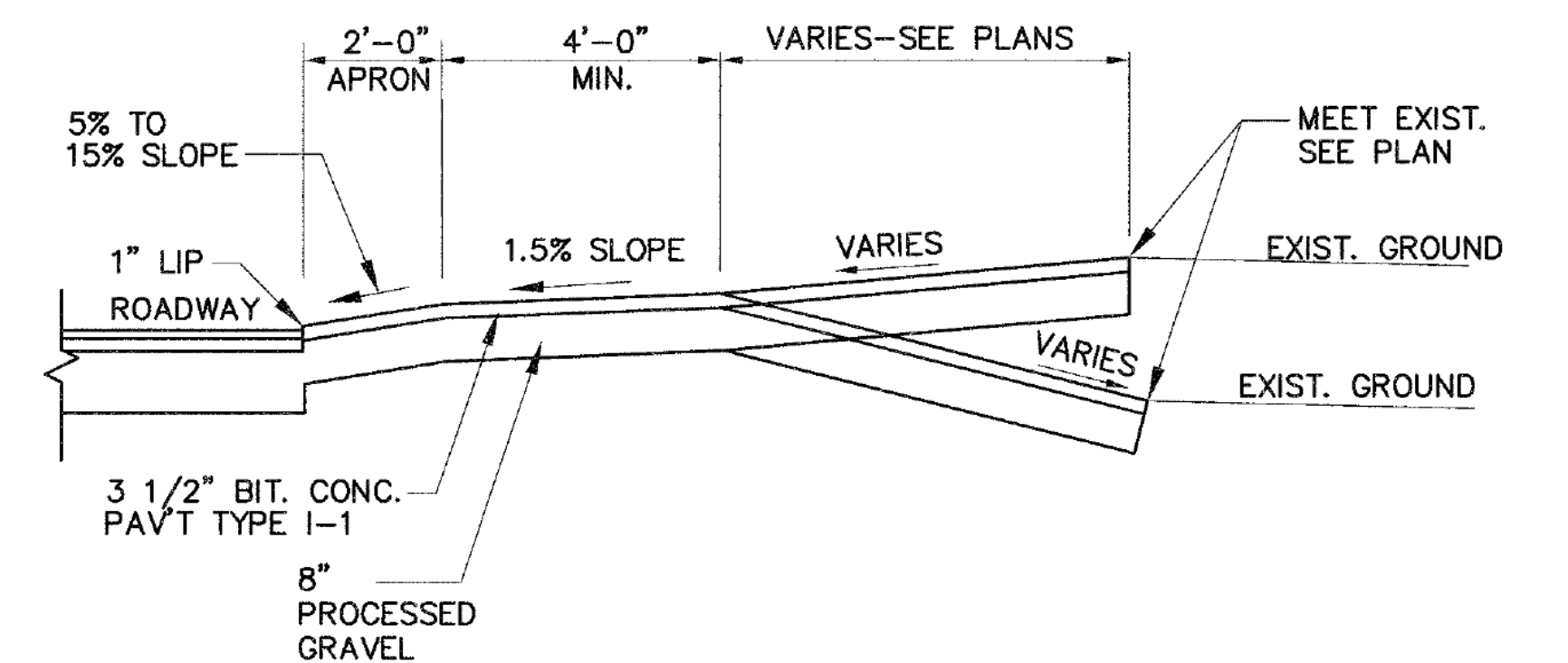
ANCHORING DETAIL
NOT TO SCALE

EMBEDDING DETAIL
NOT TO SCALE

STACKED HAY BALES



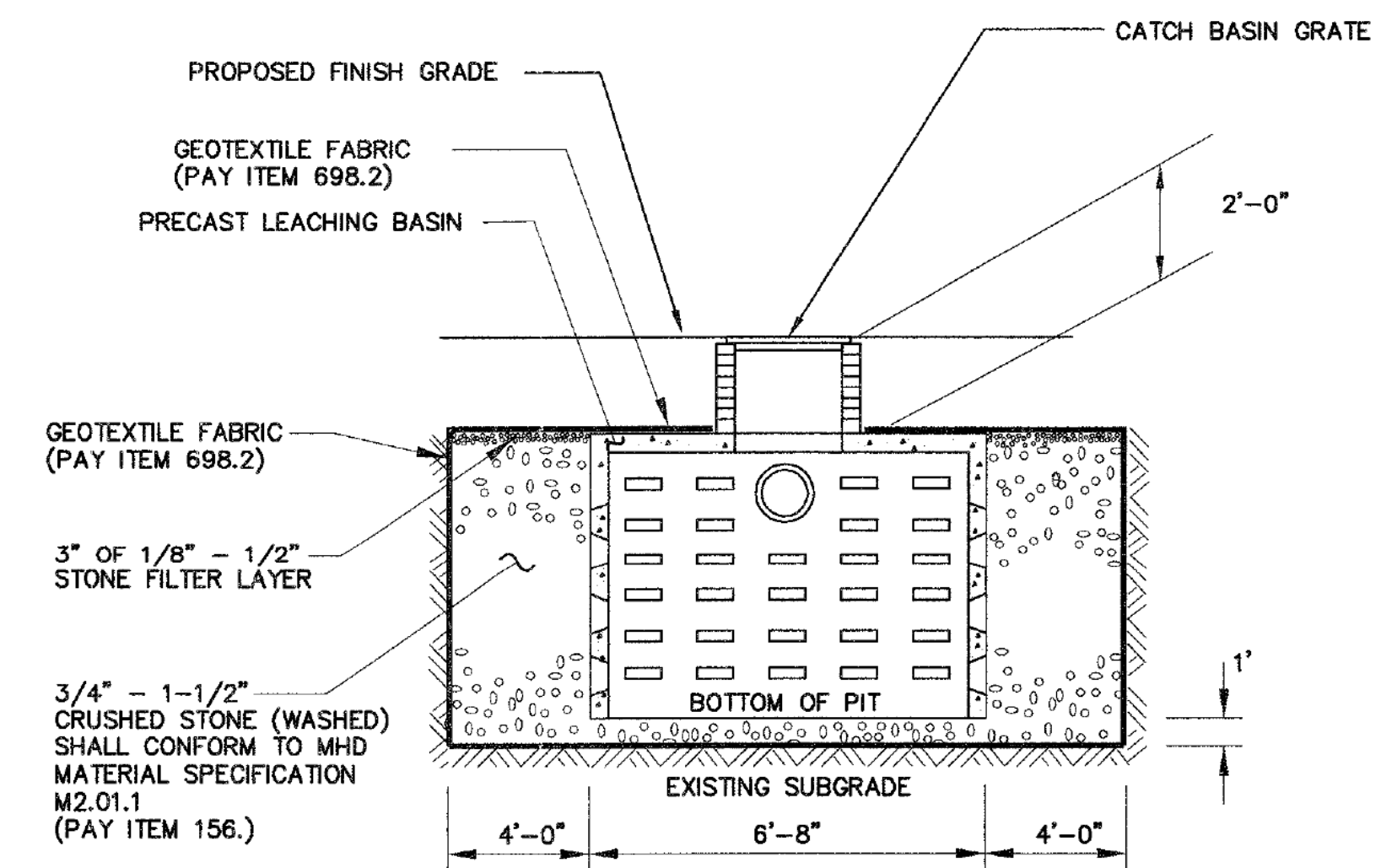
*UNLESS OTHERWISE NOTED
DRIVEWAY ENTRANCE
NOT TO SCALE



BIT. CONC. DRIVEWAY APRON
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS ON SILTATION & EROSION CONTROL

1. EROSION CONTROL MEASURES SHALL BE INCORPORATED IN THE SEQUENCE OF CONSTRUCTION TO PREVENT SEDIMENT LADEN WATER FROM LEAVING THE SITE.
2. AREAS SUBJECT TO EROSION SHALL BE MINIMIZED IN TERMS OF TIME AND AREA.
3. IN GENERAL, WORK REQUIRING EROSION CONTROL INCLUDES EXCAVATIONS, FILLS, DRAINAGE, SWALES AND DITCHES, ROUGH AND FINISH GRADING, AND STOCKPILING OF EARTH.
4. DO NOT DISTURB VEGETATION AND TOPSOIL BEYOND THE PROPOSED LIMIT OF SILT FENCE ACTIVITIES.
5. TEMPORARY SILT FENCE & STRAW BALES SHALL BE PLACED AS SHOWN ON THE PLAN. STAKE ALL BALES WITH 2"x2"x4' STAKES.
6. UPON COMPLETION OF ALL CATCH BASIN STRUCTURES, HAY BALES SHALL BE PLACED AROUND EACH STRUCTURE TO PREVENT SILTATION.
7. PERMANENTLY STABILIZE EACH COMPLETED SEGMENT OF CONSTRUCTION.
8. THE CONTRACTOR SHALL REMOVE TEMPORARY SILT FENCE AND STRAW BALES AND ALL ACCUMULATED SILT AND DEBRIS AFTER COMPLETION OF CONSTRUCTION OPERATIONS. STRAW BALES SHALL BE IN PLACE AT ALL TIMES DURING CONSTRUCTION.
9. THE CONTRACTOR SHALL REMOVE AND DISPOSE OF ALL SILT AND DEBRIS FROM EACH DRAINAGE STRUCTURE UPON COMPLETION OF THE PROJECT.
10. OBJECTS AND/OR AREAS DAMAGED BY THE CONTRACTOR'S OPERATIONS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION.
11. ALL DISTURBED AREAS SHALL BE RESTORED TO EXISTING GRADE.
12. BALES SHALL BE PLACED IN A ROW WITH ENDS TIGHTLY ABUTTING THE ADJACENT BALES.
13. EACH BALE SHALL BE EMBEDDED IN THE SOIL A MINIMUM OF 4".
14. BALES SHALL BE SECURELY ANCHORED IN PLACE BY STAKES DRIVEN THROUGH THE BALES.
15. THE FIRST STAKE IN EACH BALE SHALL BE ANGLED TOWARD THE PREVIOUSLY PLACED BALE TO FORCE THE BALES TOGETHER.
16. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE AS NEEDED.
17. BALES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.



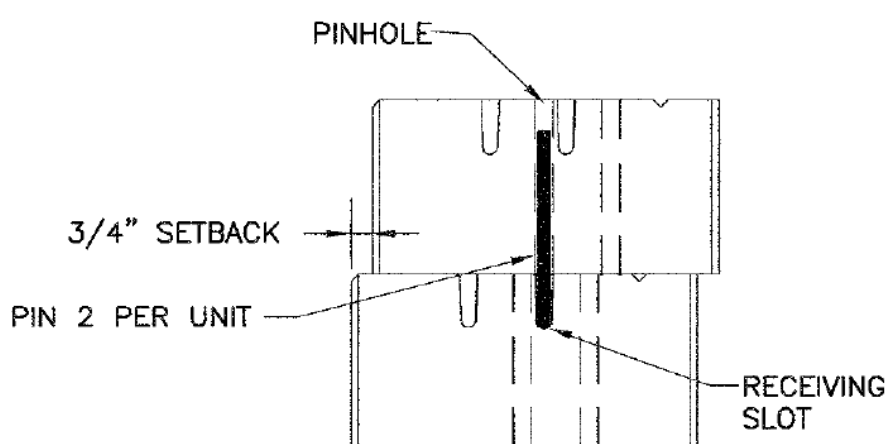
LEACHING BASIN DETAIL
NOT TO SCALE

CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-001S(062)X	2002	7	98

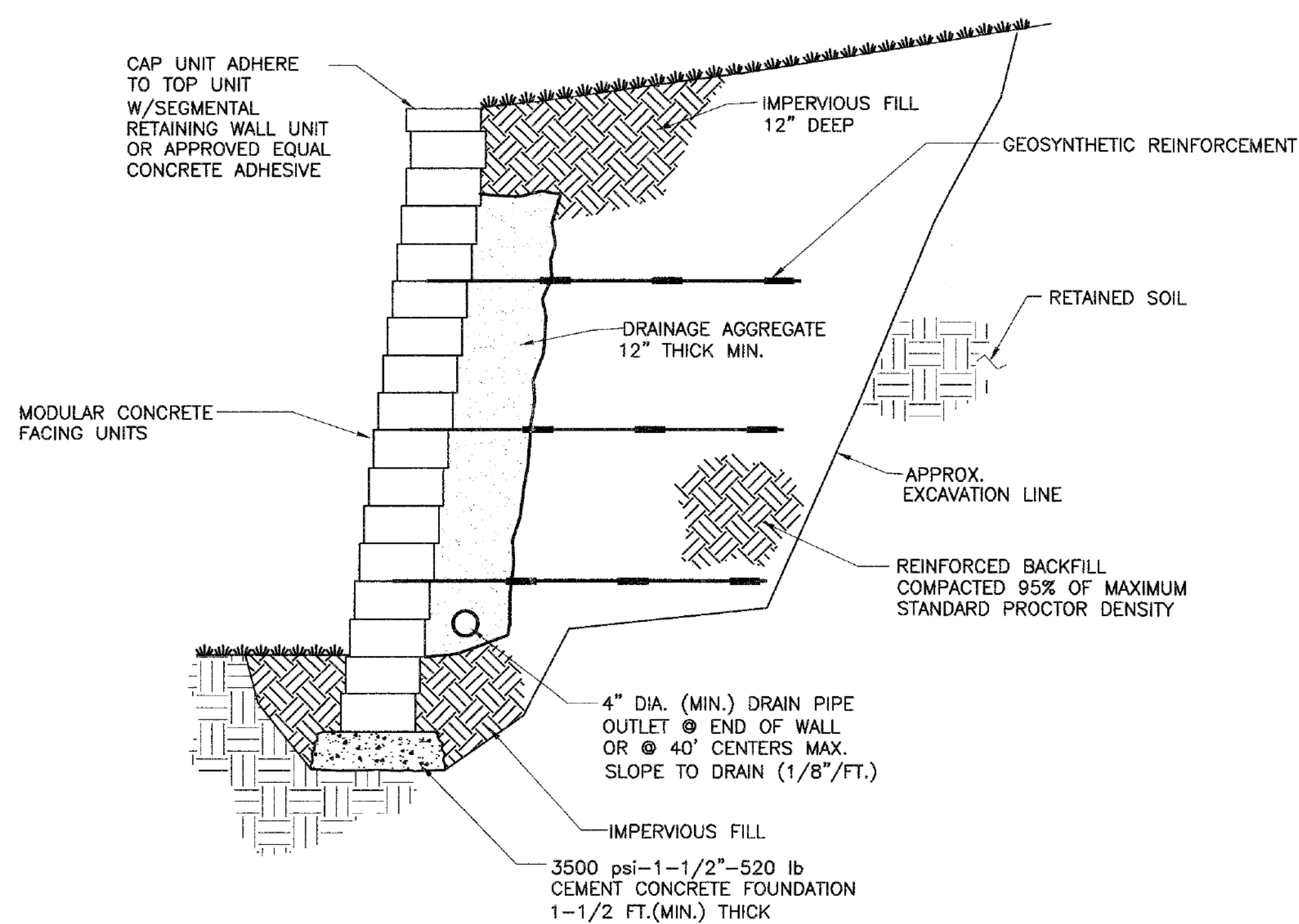
PROJECT FILE NO. 601466

WALL DETAIL



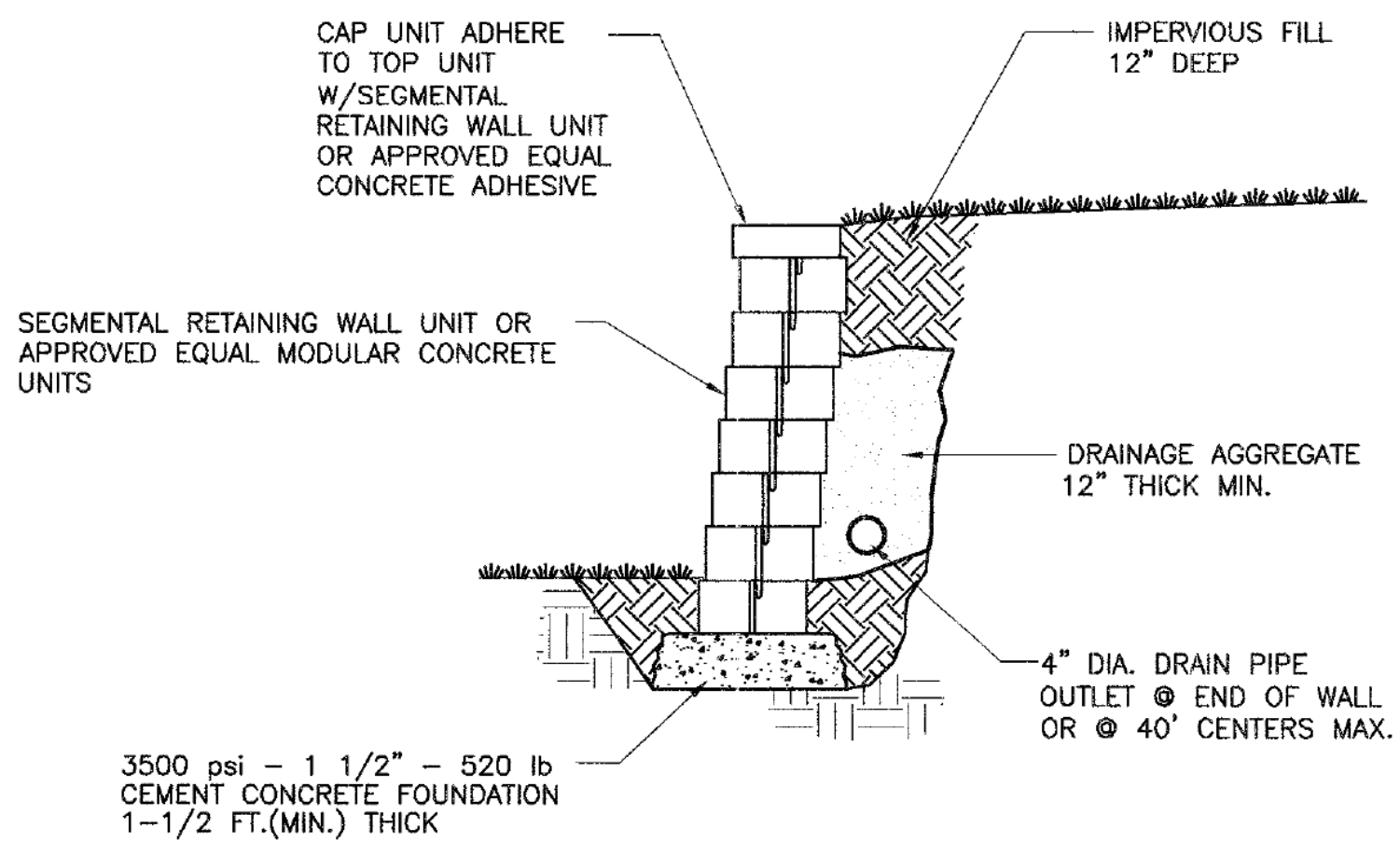
PINNING DETAIL

CROSS SECTION
N.T.S.



TYPICAL SECTION-REINFORCED RETAINING WALL

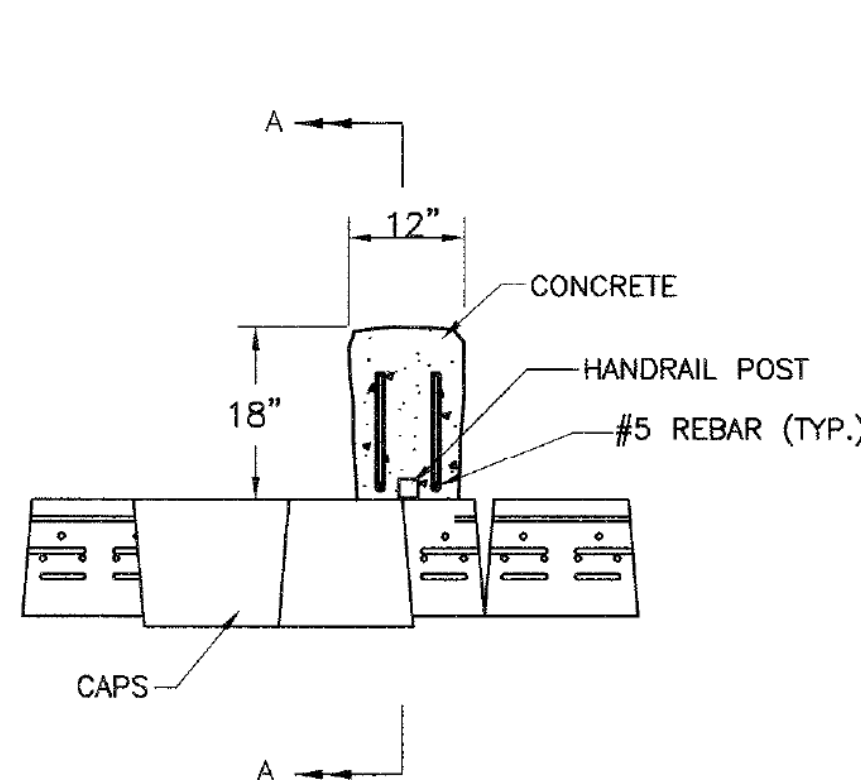
MODULAR CONCRETE UNIT
N.T.S.



TYPICAL SECTION-UNREINFORCED 4 FEET HIGH MAX

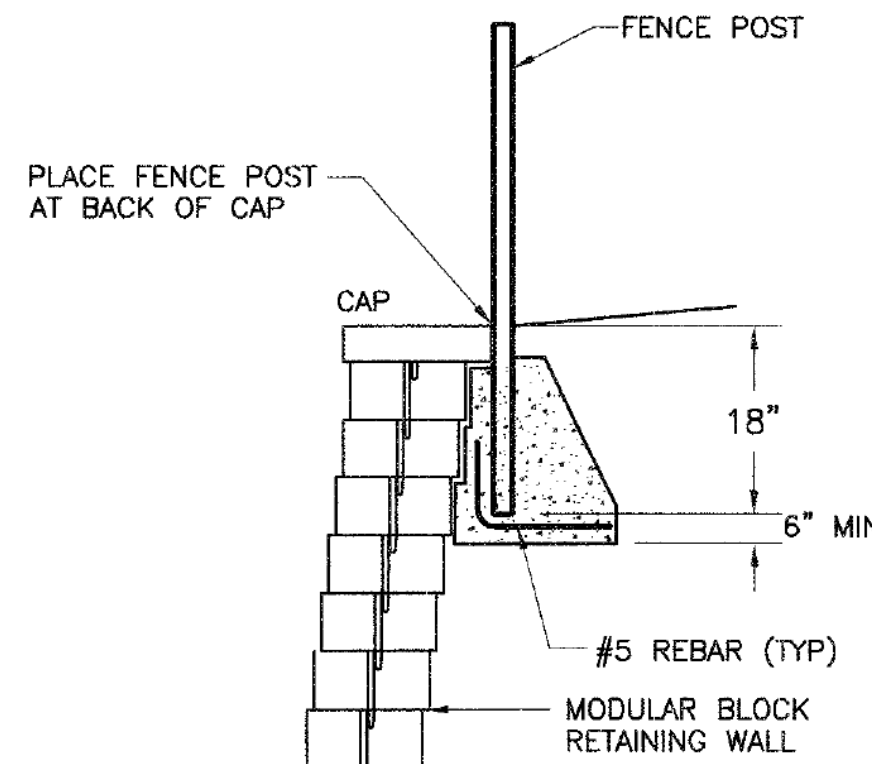
RETAINING WALL

N.T.S.



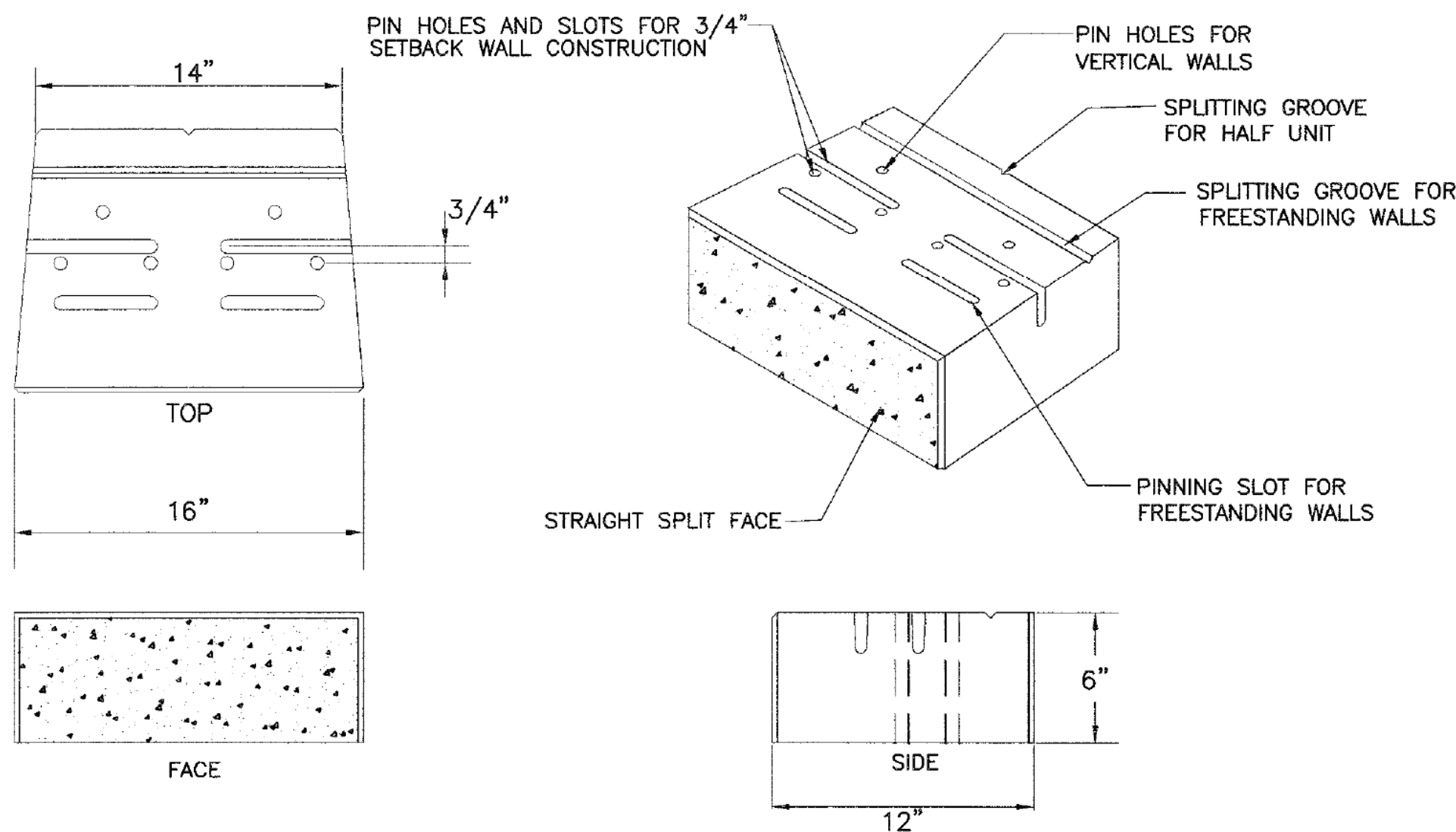
POST DETAIL- PLAN VIEW

TYPICAL FENCE POST
N.T.S.



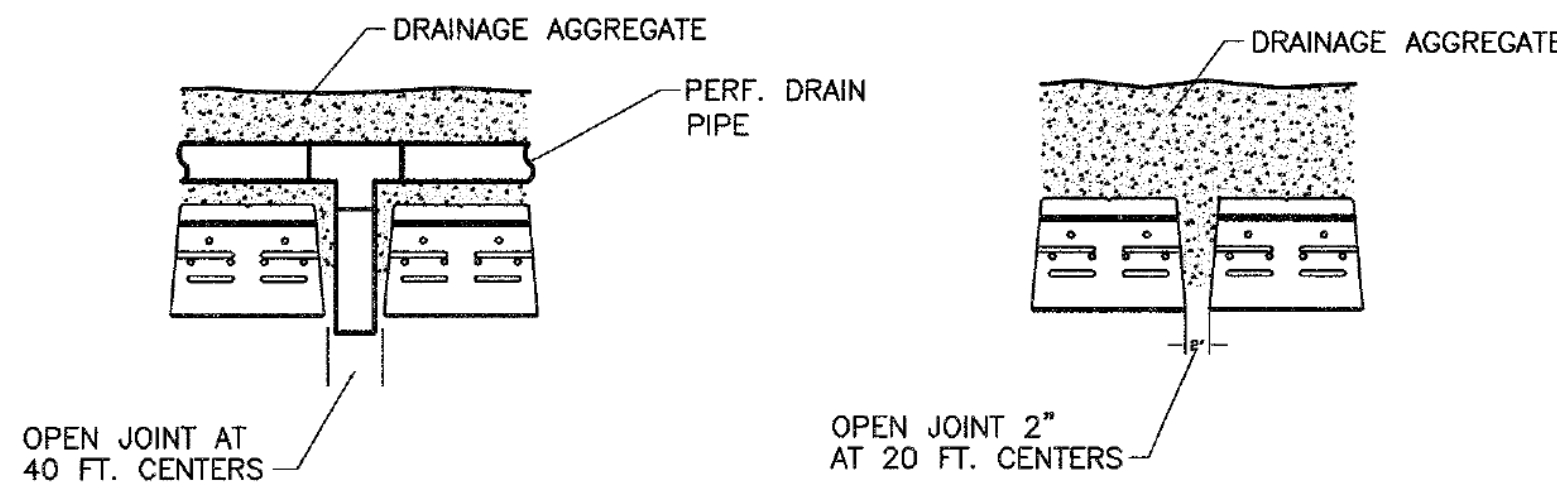
POST DETAIL- SECTION A-A

TYPICAL FENCE POST
N.T.S.



SEGMENTAL RETAINING WALL UNIT

UNIT DIMENSIONS
N.T.S.

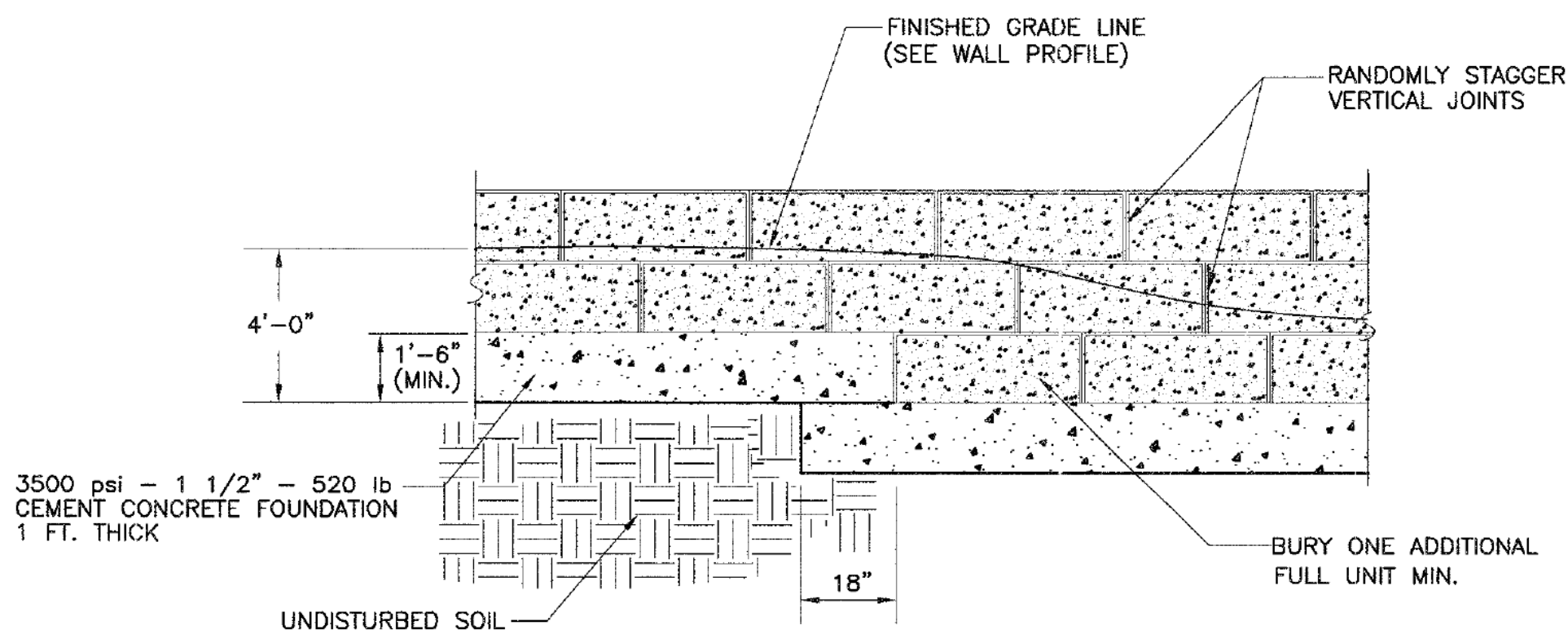


DRAIN DETAIL

WALLS OVER 4'
N.T.S.

DRAIN DETAIL

WALLS UNDER 4'
N.T.S.



STEPPED BASE DETAIL

N.T.S.

NOTE:
-LIMIT CHANGES IN BASE ELEVATION
TO 6" PER STEP TO AVOID
DIFFERENTIAL SETTLEMENT
-STEP OFTEN ENOUGH TO MAINTAIN
MINIMUM REQUIRED EMBEDMENT

GENERAL NOTES:

1. STRIP VEGETATION AND ORGANIC SOIL FROM WALL AND GEOSYNTHETIC ALIGNMENT.
2. BENCH CUT ALL EXCAVATED SLOPES.
3. DO NOT EXCAVATE BEYOND EXCAVATION LINES SHOWN ON PLAN UNLESS DIRECTED BY SITE SOILS ENGINEER TO REMOVE UNSUITABLE SOIL.
4. CONTRACTOR SHALL ENSURE TEMPORARY EXCAVATIONS ARE STABLE AND PROVIDE EXCAVATION SUPPORT IF NEEDED.
5. SITE SOILS ENGINEER SHALL VERIFY FOUNDATION SOILS AS BEING COMPETENT PER THE DESIGN PARAMETERS.
6. LEVELING PAD SHALL CONSIST OF WELL GRADED ROAD BASE AGGREGATE, 3/4" CRUSHED, ANGULAR GRAVEL WITH SOME FINES.
7. CONTRACTOR MAY OPT FOR A LEAN CONCRETE LEVELING PAD. PAD SHALL BE UNREINFORCED LEAN CONCRETE, 200-300 PSI, 3" THICK MAXIMUM.
8. DRAINAGE AGGREGATE SHALL CONSIST OF CLEAN ANGULAR GRAVEL, 3/4" DIAMETER WITH LESS THAN 5% FINES.
9. DRAINAGE PIPE SHALL BE PERFORATED OR SLOTTED PVC OR CORRUGATED HDPE PIPE.
10. REINFORCED BACKFILL SHALL BE FREE OF DEBRIS, ORGANIC SOIL, AND EXPANSIVE SOILS.
11. FOR UNITS TO BE EMBEDDED, COMPACT FILL IN FRONT OF UNITS AT THE SAME TIME FILL BEHIND UNITS IS COMPACTED.
12. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY. (ASTM D-698)
13. COMPACTION TESTS SHALL BE TAKEN AS THE WALL IS INSTALLED. THE MINIMUM NUMBER OF TESTS SHALL BE DETERMINED BY THE SITE SOILS ENGINEER.
14. COMPACTION SHALL BE TO 95% OF MAXIMUM STANDARD PROCTOR DENSITY.
15. CONTRACTOR SHALL SLOPE SITE GRADES TO DIRECT SURFACE RUNOFF AWAY FROM WALL AT END OF EACH DAY TO AVOID WATER DAMAGING THE WALL WHILE UNDER CONSTRUCTION.
16. ANY SURFACE DRAINAGE FEATURES, FINISH GRADING, PAVEMENT, OR TURF SHALL BE INSTALLED IMMEDIATELY AFTER WALL IS COMPLETED.
17. FOLLOW APPLICABLE PROVISIONS OF THE WALL UNIT AND GEOSYNTHETIC MANUFACTURER'S INSTALLATION INSTRUCTIONS AND WRITTEN SPECIFICATIONS.
18. WALL FOUNDATION SHALL BE AS PER MHD STANDARD.

IF THE CONDITIONS ARE DIFFERENT THAN THOSE STATED IN THESE DRAWINGS AND SPECIFICATIONS, THE CONTRACTOR MUST CONTACT THE ENGINEER PRIOR TO PROCEEDING WITH THE CONSTRUCTION OF THE WALL.

WESTON & SAMPSON ENGINEERS INC.

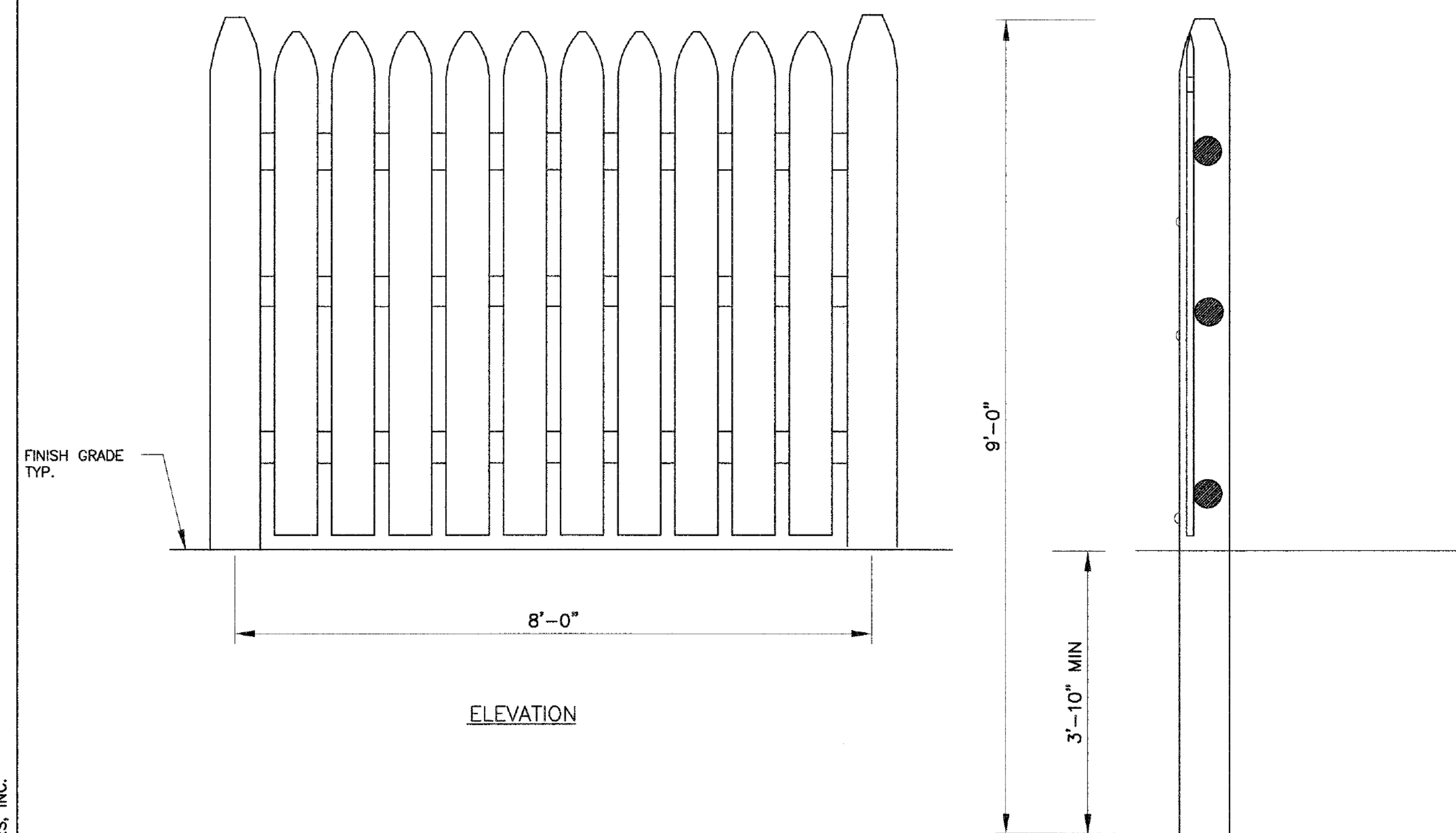
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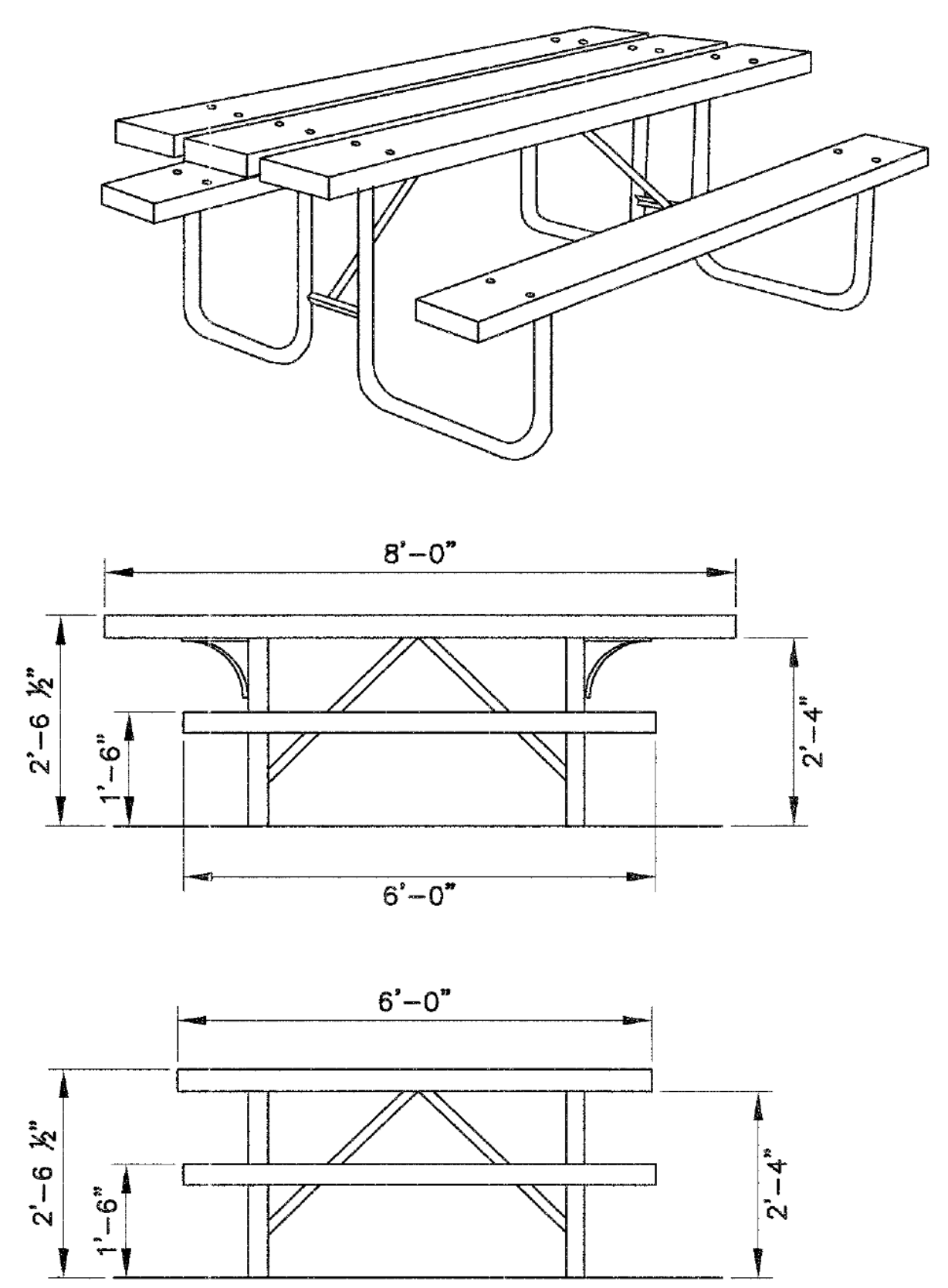
CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	8	98
PROJECT FILE NO. 601466				

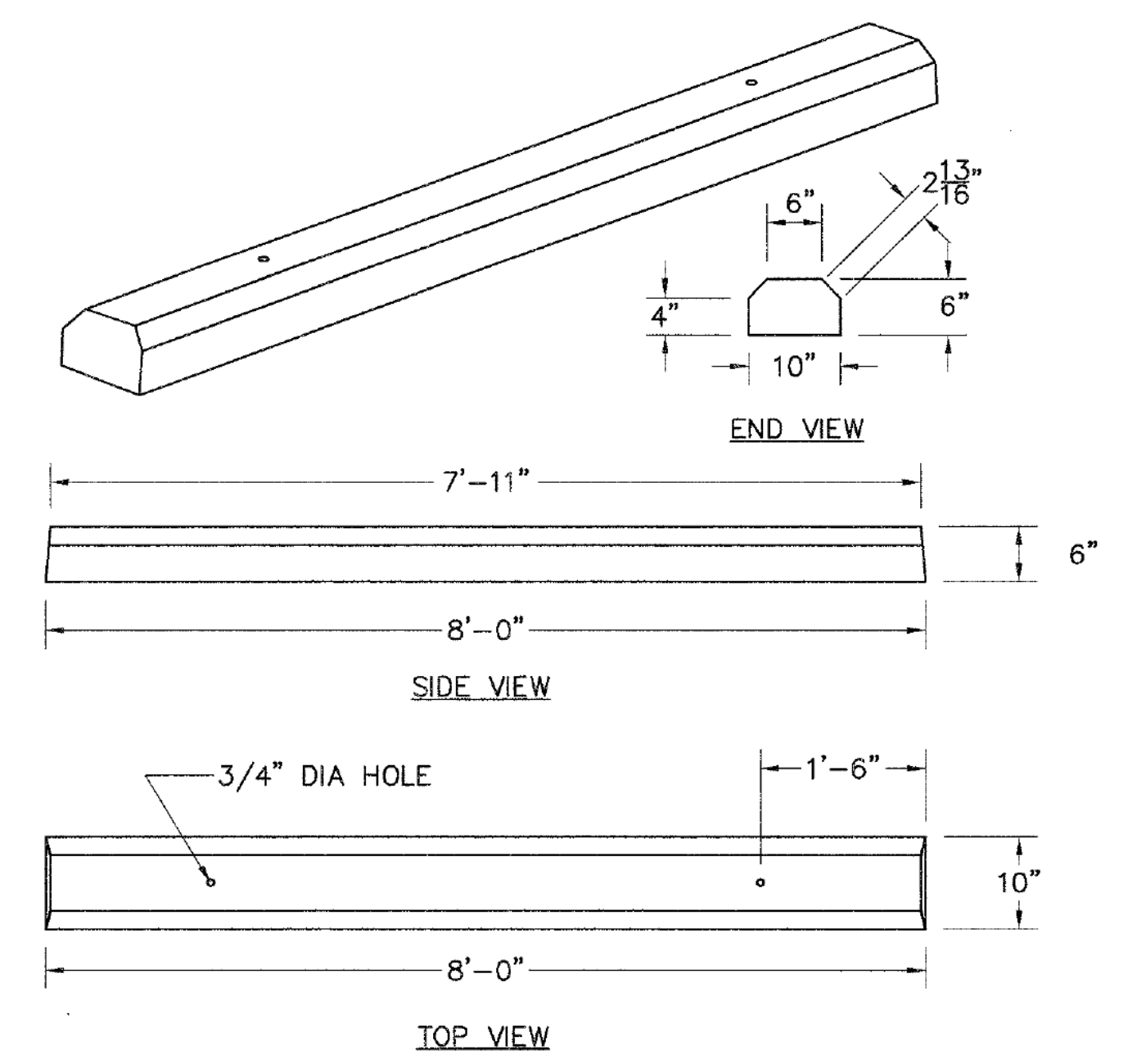
DETAILS



72" HIGH/8'-0" WIDE STOCKADE FENCE
N.T.S.

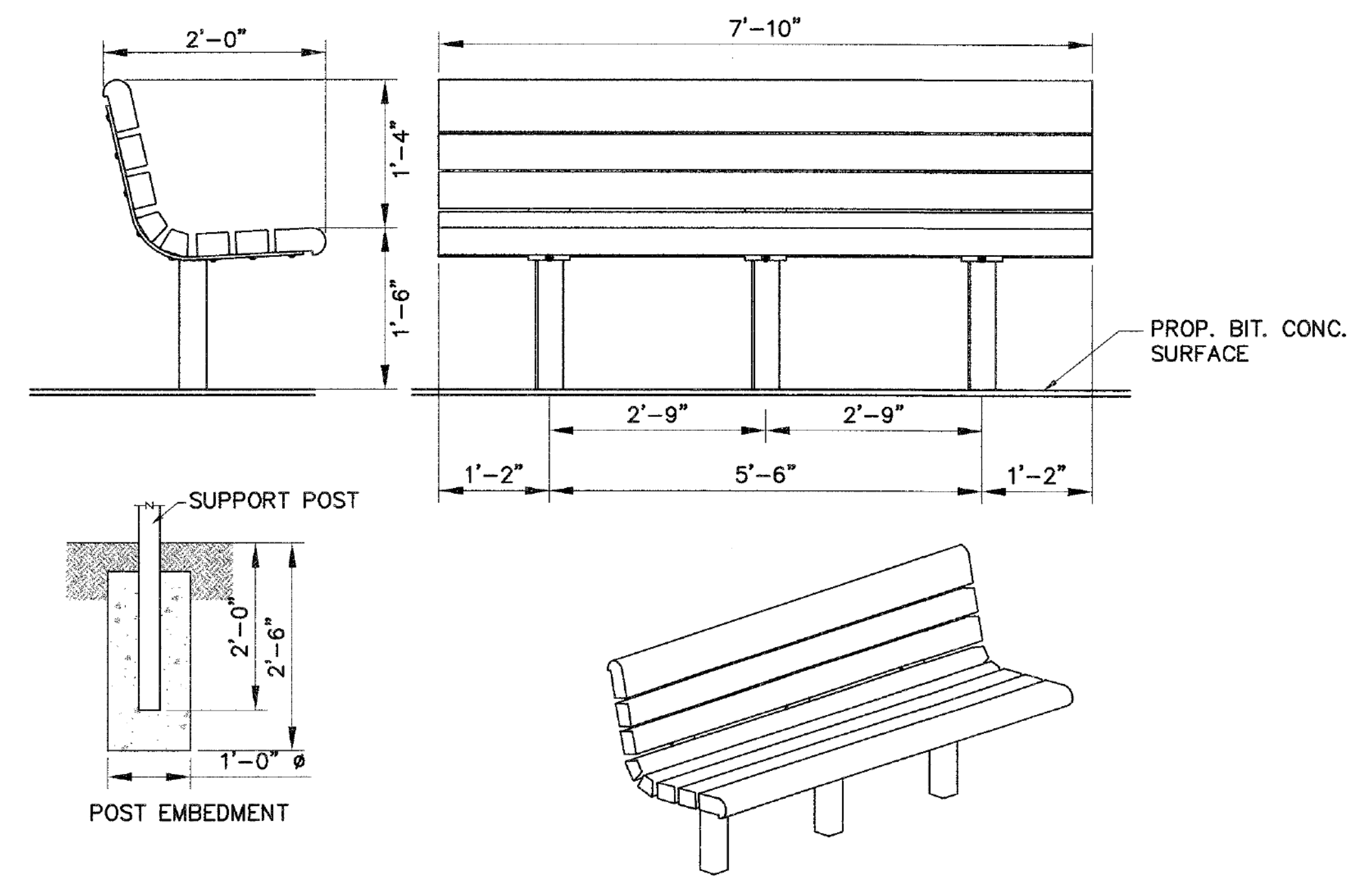


PICNIC TABLE
N.T.S.

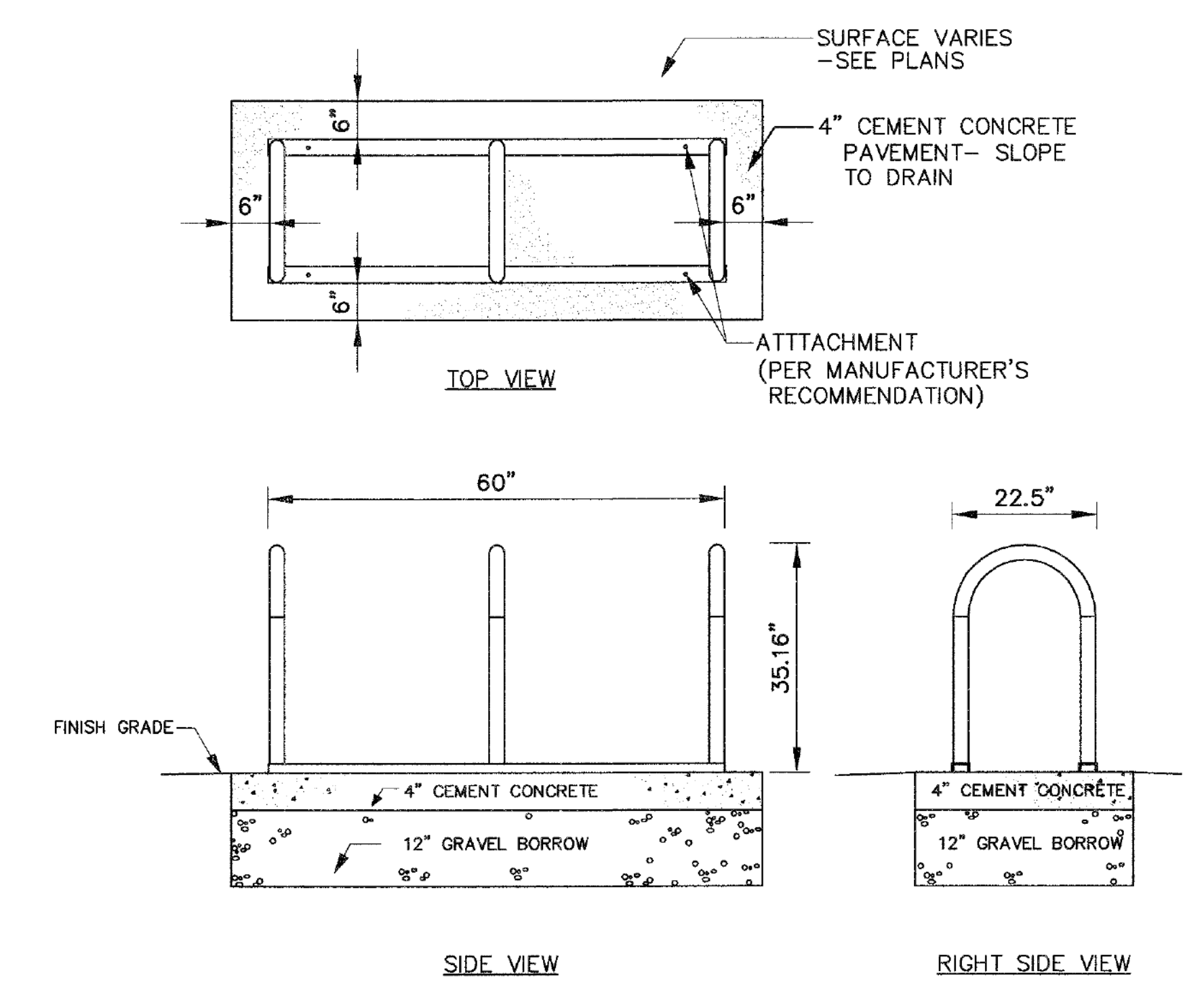


- NOTES:
1. CONCRETE: 4,000 PSI MINIMUM AFTER 28 DAYS
 2. PINS AVAILABLE.

CEMENT CONCRETE WHEEL STOP
N.T.S.



BENCH
N.T.S.



BICYCLE RACK
N.T.S.

- NOTES:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

WESTON & SAMPSON ENGINEERS, INC.

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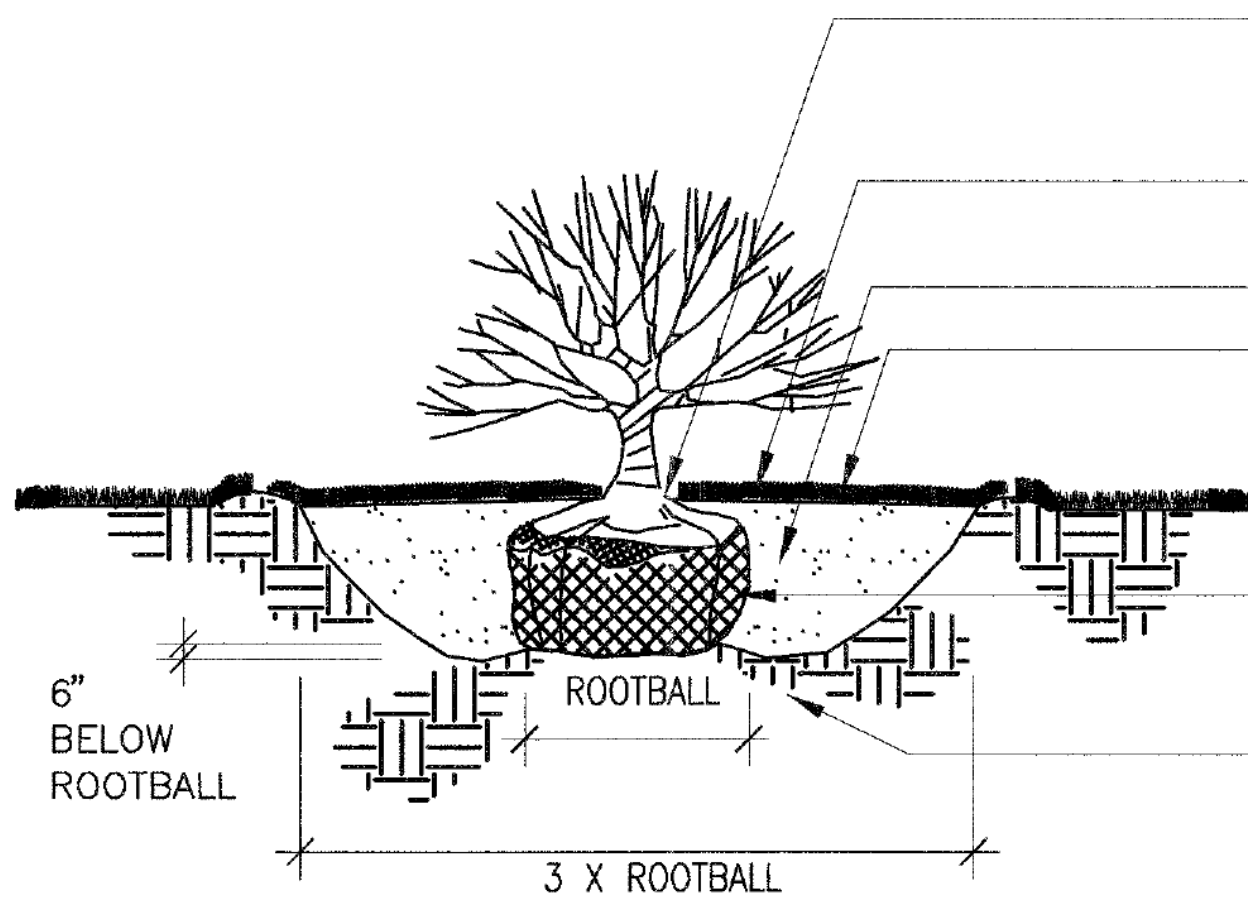
CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2001	9	98

PROJECT FILE NO. 601466

LANDSCAPE DETAILS

EXCAVATE TO REQUIRED DEPTH
AND BACKFILL WITH PLANTING MIX



RAISE AND REPLANT ANY SHRUBS WHICH SETTLE
MORE THAN 2" AFTER PLANTING & WATERING IN

SHRUBS SHALL BE SET PLUMB

WATER BY FLOODING TWICE IN FIRST TWO HOURS
AFTER PLANTING. WATER & MAINTAIN AS PER
STANDARD SPECIFICATIONS

SHRUB SHALL BE PLANTED SO THAT CROWN
IS 2" MIN. ABOVE FINISHED GRADE AFTER SETTLEMENT

2" - 3" DEPTH AGED PINE BARK MULCH (PULL
AWAY FROM BASE OF SHRUB)

BACKFILL MIX PER SPECIAL PROVISIONS

3" HIGH EARTH WATERING SAUCER
AROUND TREE PIT

COMPLETELY REMOVE SYNTHETIC BURLAP AND
LACING. FOR CONTAINERIZED PLANTS, REMOVE
CONTAINER PRIOR TO PLANTING

COMPACTED OR UNDISTURBED SUBGRADE

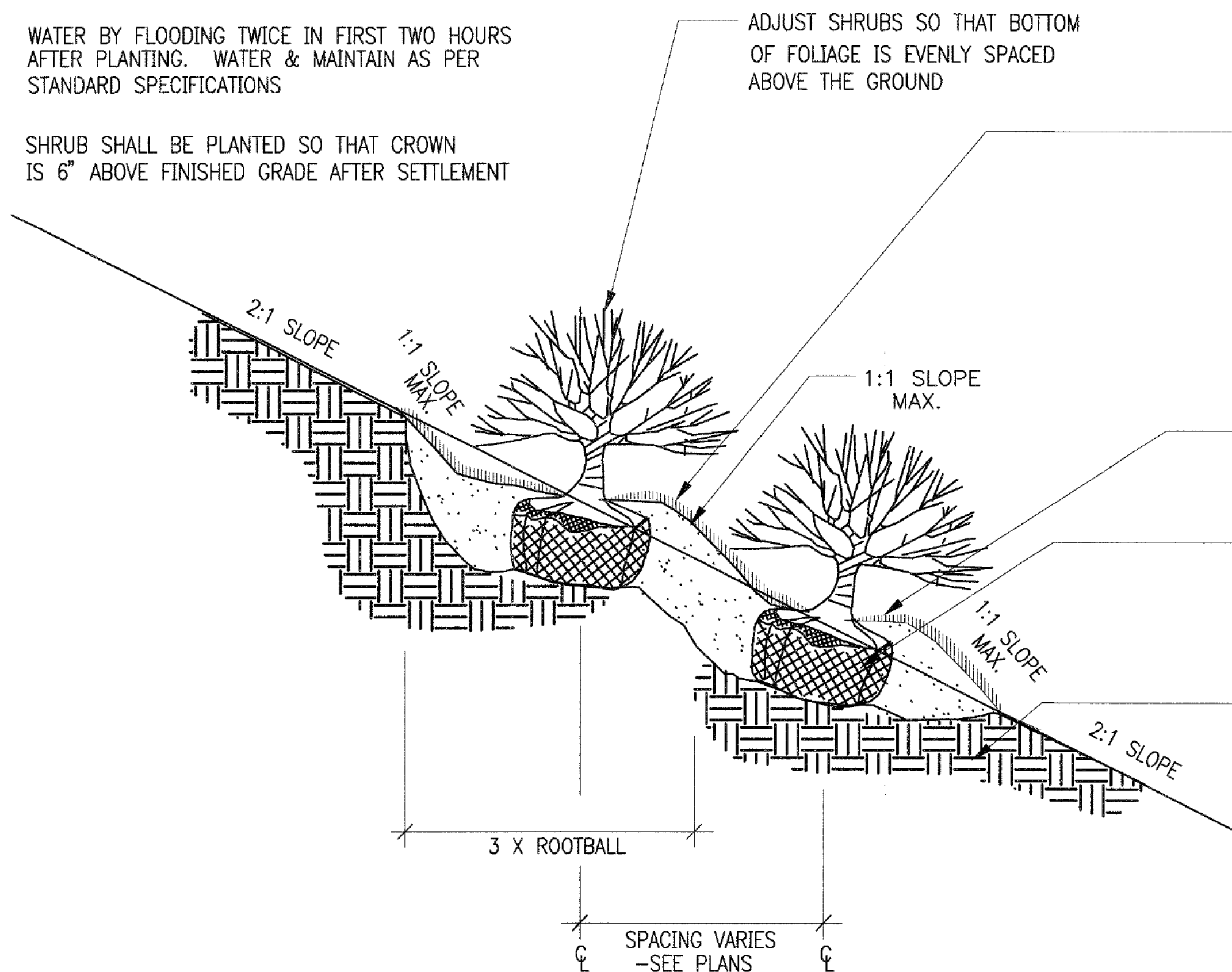
LOOSE OR CRACKED ROOTBALLS WILL NOT BE
ACCEPTED FOR PLANTING

SHRUB PLANTING

NOT TO SCALE

WATER BY FLOODING TWICE IN FIRST TWO HOURS
AFTER PLANTING. WATER & MAINTAIN AS PER
STANDARD SPECIFICATIONS

SHRUB SHALL BE PLANTED SO THAT CROWN
IS 6" ABOVE FINISHED GRADE AFTER SETTLEMENT



2" - 3" DEPTH AGED PINE BARK MULCH (PULL
AWAY FROM BASE OF SHRUB)

BACKFILL MIX PER SPECIAL PROVISIONS

LOOSE OR CRACKED ROOTBALLS WILL NOT BE
ACCEPTED FOR PLANTING

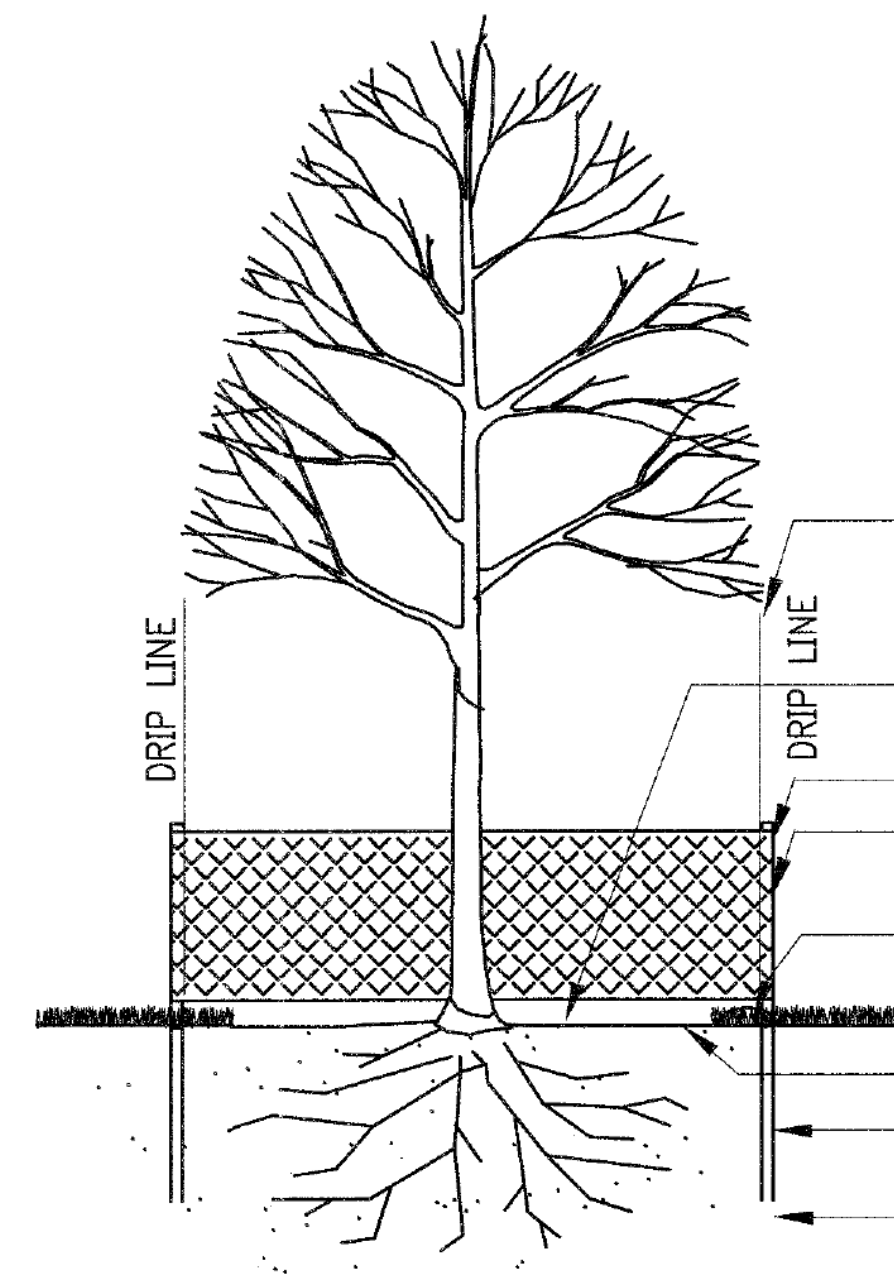
3" HIGH EARTH WATERING SAUCER
AROUND TREE PIT

COMPLETELY REMOVE SYNTHETIC BURLAP AND
LACING. FOR CONTAINERIZED PLANTS, REMOVE
CONTAINER PRIOR TO PLANTING. SCORE SIDES OF
CONTAINER AND LOOSEN ANY ROOTS ENCIRCLING
THE ROOT BALL

COMPACTED OR UNDISTURBED SUBGRADE

CONTAINERIZED SHRUB PLANTING (SLOPE) DETAIL

NOT TO SCALE



OUTLINE OF TREE CROWN (EDGE OF DRIPLINE)
CORRESPONDS WITH ROOT SPREAD

2" AGED PINE BARK MULCH (PULL MULCH
AWAY FROM TRUNK OF TREE)

FENCE POST

PLASTIC OR WOODEN SNOW FENCE
PLACED ALONG DRIPLINE

3" HIGH WATERING SAUCER AROUND DRIPLINE

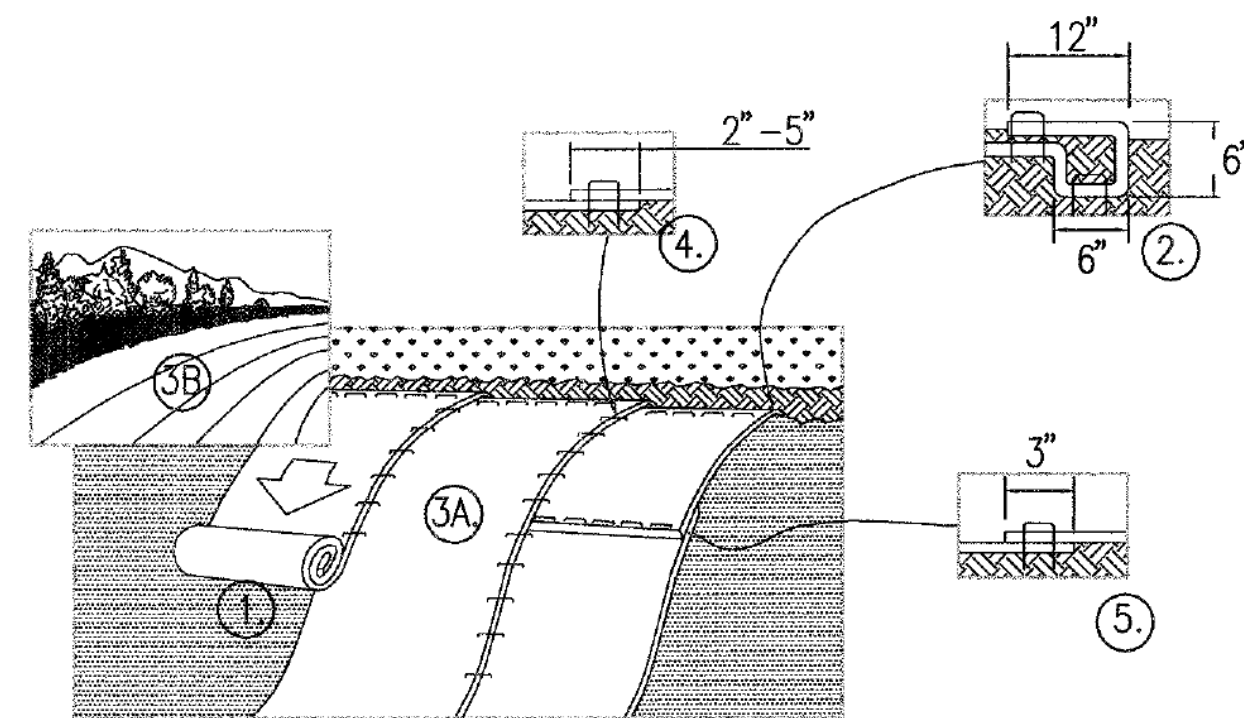
EXISTING GRADE

1/3 BURIAL OF OVERALL POST (3' MIN.)

UNDISTURBED SUBGRADE

TREE PROTECTION

NOT TO SCALE



1. PREPARE SOIL BEFORE INSTALLING BLANKETS, INCLUDING ANY NECESSARY
APPLICATION OF LIME, FERTILIZER, AND SEED.

2. BEGIN AT THE TOP OF THE SLOPE BY ANCHORING THE BLANKET IN A 6"
DEEP X 6" WIDE TRENCH WITH APPROXIMATELY 12" OF BLANKET EXTENDED
BEYOND THE UP-SLOPE PORTION OF THE TRENCH. ANCHOR THE BLANKET
WITH A ROW OF STAPLES/STAKES APPROXIMATELY 12" APART IN THE
BOTTOM OF THE TRENCH. BACKFILL AND COMPACT THE TRENCH AFTER
STAPLING. APPLY SEED TO COMPACTED SOIL AND FOLD REMAINING 12"
PORTION OF BLANKET BACK OVER SEED AND COMPACTED SOIL. SECURE
BLANKET OVER COMPACTED SOIL WITH A ROW OF STAPLES/STAKES SPACED
APPROXIMATELY 12" APART ACROSS THE WIDTH OF THE BLANKET.

3. ROLL THE BLANKETS (A.) DOWN OR (B.) HORIZONTALLY ACROSS THE SLOPE.
BLANKETS WILL UNROLL WITH APPROPRIATE SIDE AGAINST THE SOIL
SURFACE. ALL BLANKETS MUST BE SECURELY FASTENED TO SOIL SURFACE
BY PLACING STAPLES/STAKES IN APPROPRIATE LOCATIONS AS SHOWN IN
THE STAPLE PATTERN GUIDE.

4. THE EDGES OF PARALLEL BLANKETS MUST BE STAPLED WITH APPROXIMATELY
2" - 5" OVERLAP DEPENDING ON BLANKET TYPE. TO ENSURE PROPER SEAM
ALIGNMENT, PLACE THE EDGE OF THE OVERLAPPING BLANKET (BLANKET
BEING INSTALLED ON TOP) EVEN WITH THE COLORED SEAM STITCH ON THE
PREVIOUSLY INSTALLED BLANKET.

5. CONSECUTIVE BLANKETS SPLICED DOWN THE SLOPE MUST BE PLACED END
OVER END (SHINGLE STYLE) WITH AN APPROXIMATE 3" OVERLAP. STAPLE
THROUGH OVERLAPPED AREA, APPROXIMATELY 12" APART ACROSS ENTIRE
BLANKET WIDTH.

6. USE STAPLE PATTERN "C" & ROLL BLANKETS HORIZONTALLY. STAKES SHALL
BE 1"x1"x6" HARDWOOD

NOTE:
*IN LOOSE SOIL CONDITIONS, THE USE OF STAPLE OR STAKE LENGTHS
GREATER THAN 6" MAY BE NECESSARY TO PROPERLY SECURE THE
BLANKETS.

SLOPE INSTALLATION AND STAPLE PATTERN GUIDE

NOT TO SCALE

WESTON & SAMPSON ENGINEERS, INC.

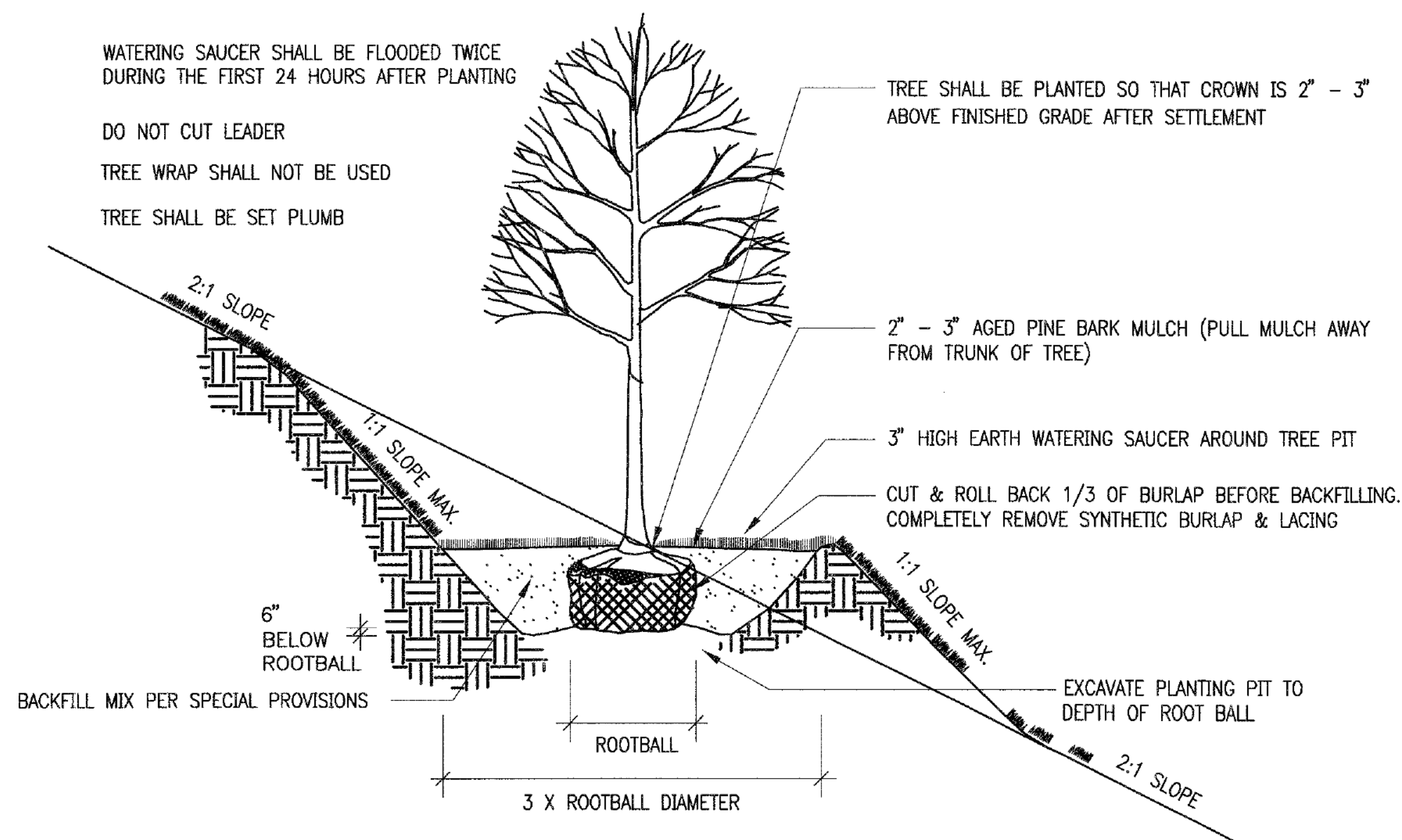
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CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	10	98

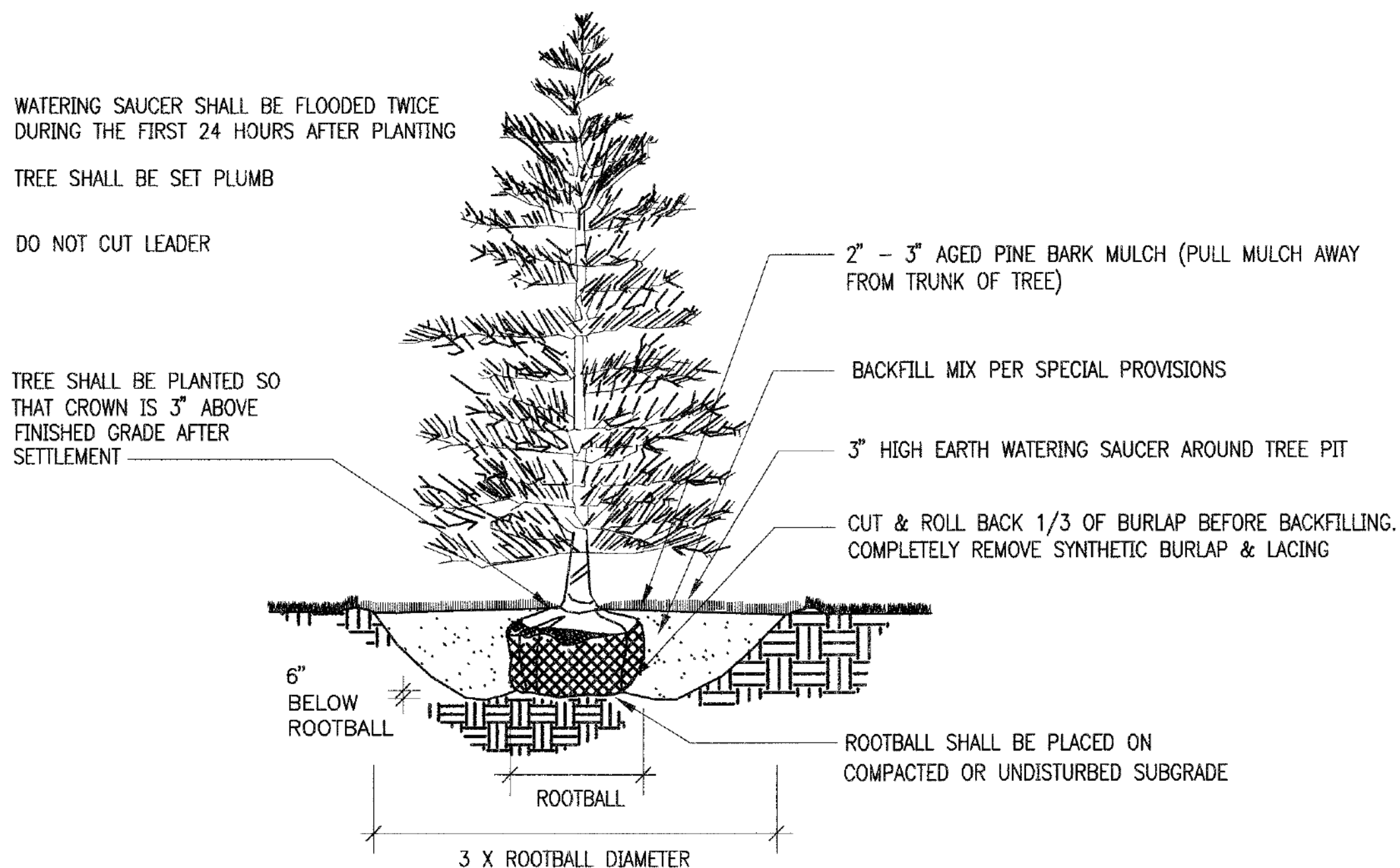
PROJECT FILE NO. 601466

LANDSCAPE DETAILS



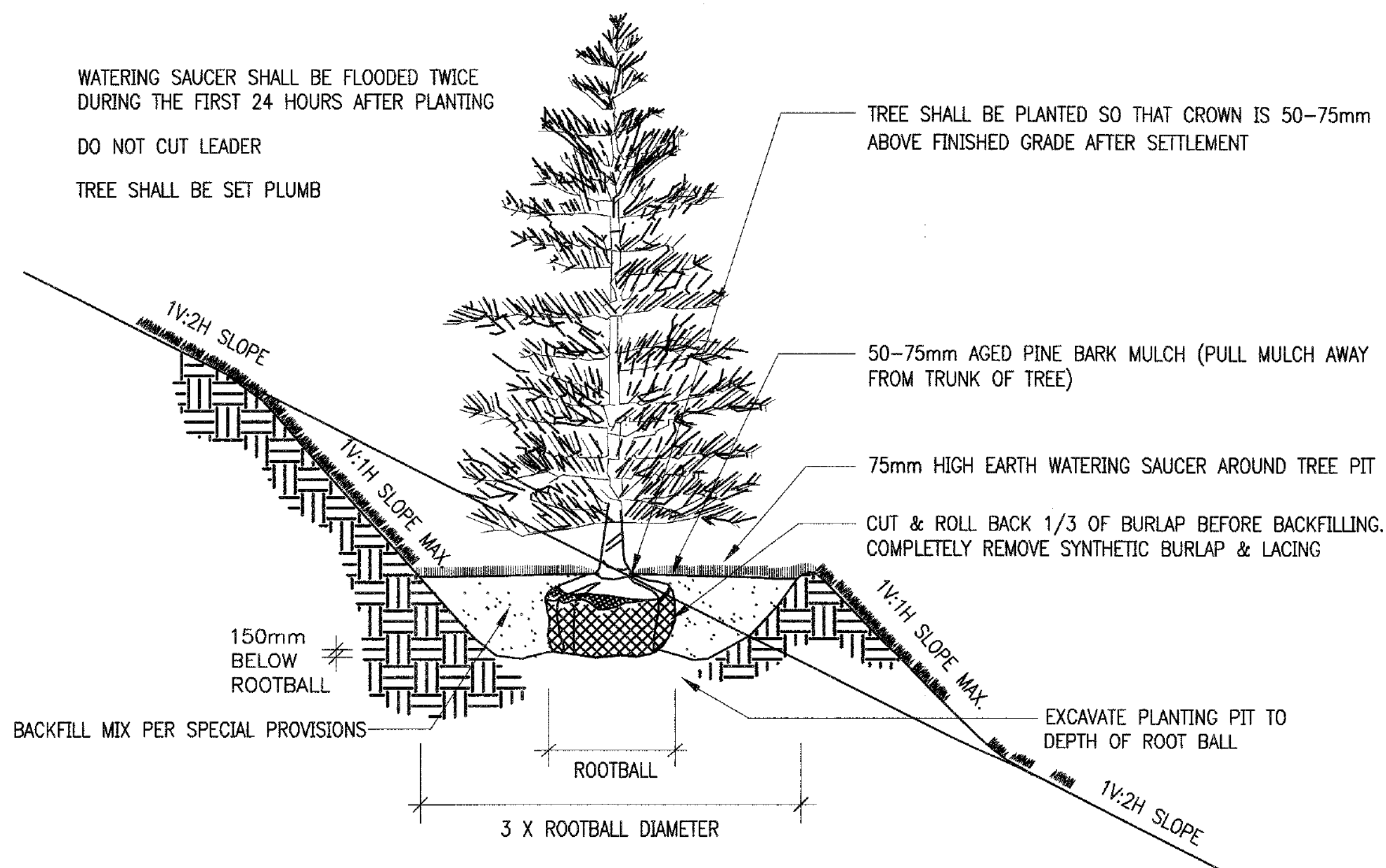
DECIDUOUS TREE PLANTING (SLOPE)

NOT TO SCALE



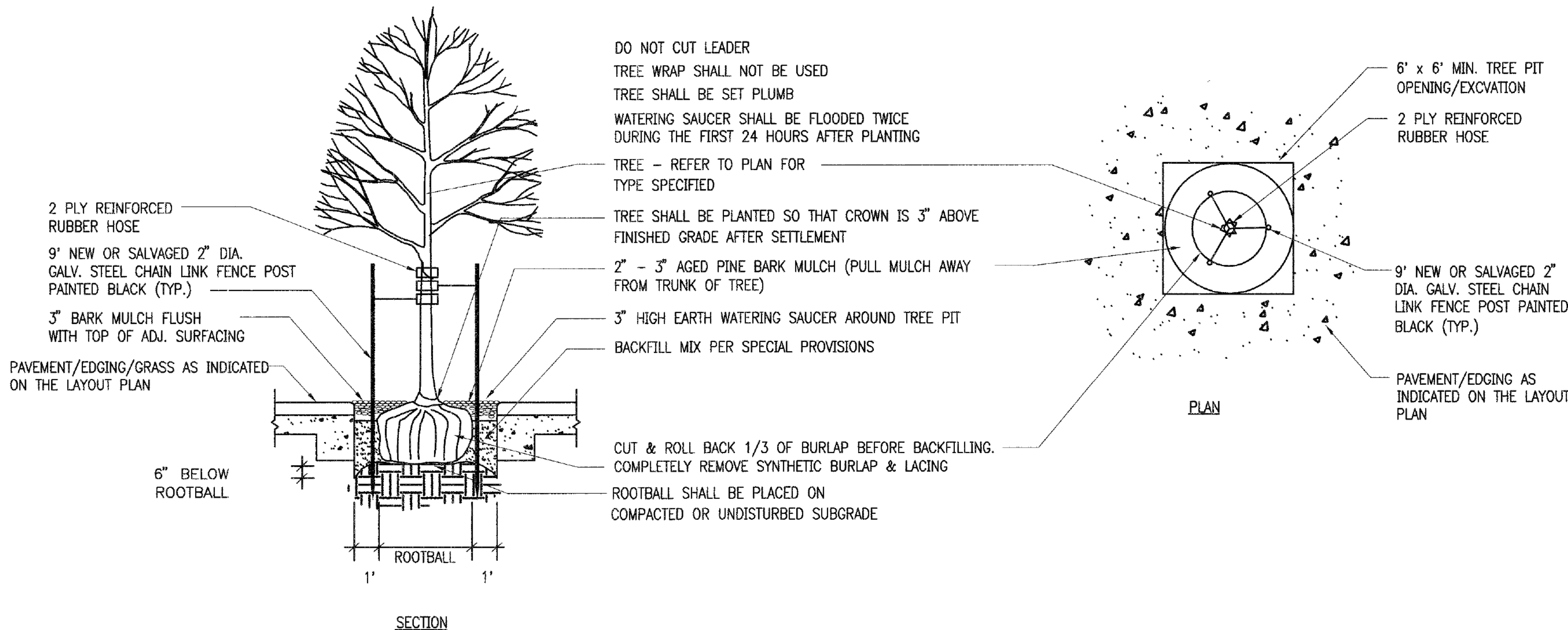
EVERGREEN TREE PLANTING

NOT TO SCALE



EVERGREEN TREE PLANTING (SLOPE)

NOT TO SCALE



DECIDUOUS TREE PLANTING

NOT TO SCALE

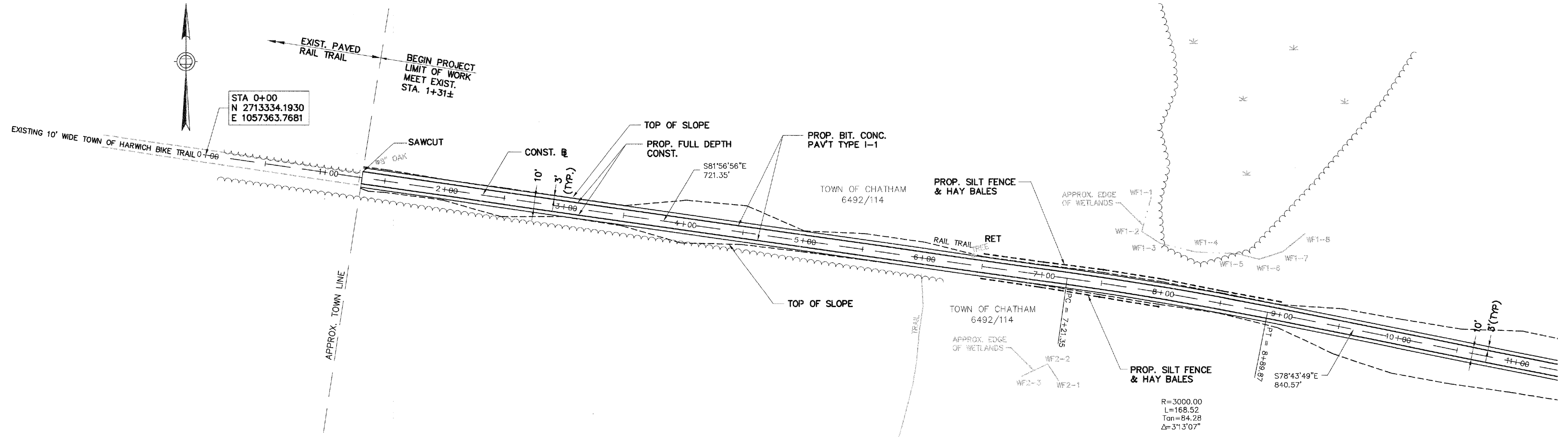
CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-001S(062)X	2002	11	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

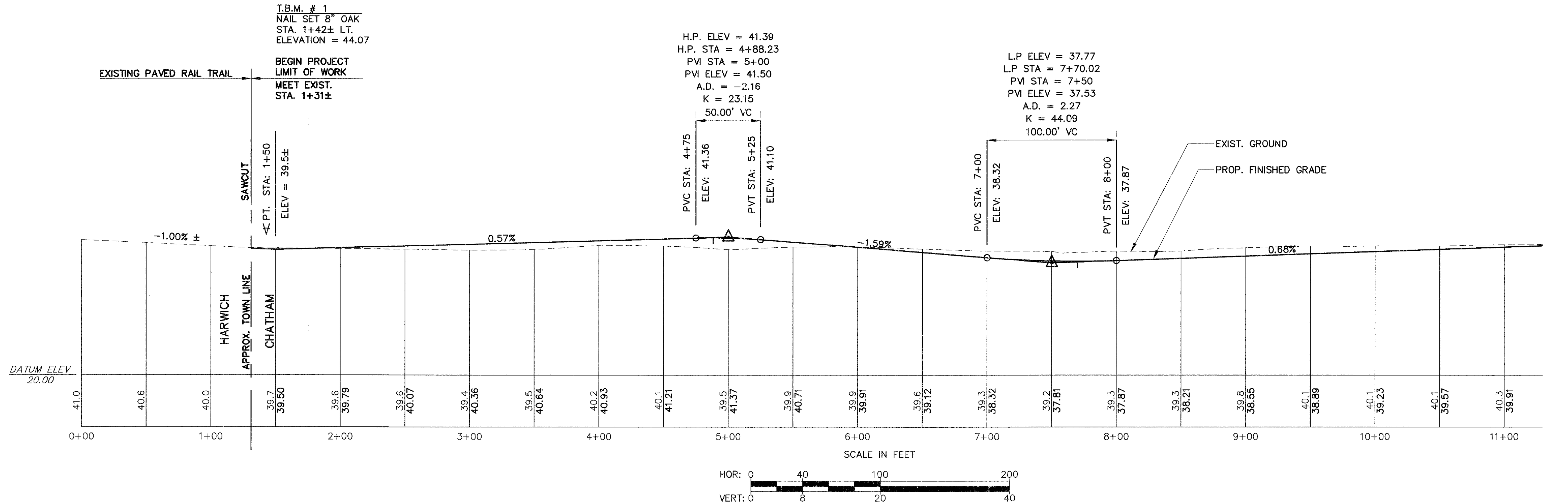
THREE RAIL FENCE

STA. 6+50 TO STA. 9+00 LT.
STA. 7+00 TO STA. 8+50 RT.



T.B.M. # 2
NAIL SET IN TREE
STA. 6+42± LT.
ELEVATION = 40.92

T.B.M. # 1
NAIL SET 8" OAK
STA. 1+42± LT.
ELEVATION = 44.07



WESTON & SAMPSON ENGINEERS, INC.

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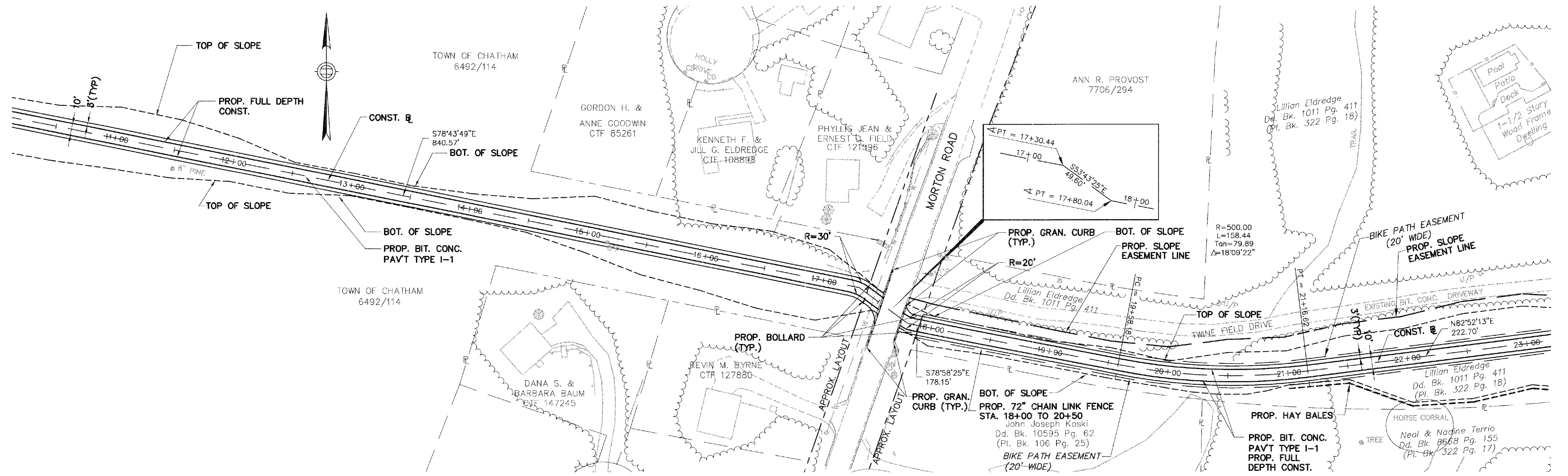
CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	12	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE

STA. 15+00 TO STA. 17+25 LT., RT.
STA. 20+50 TO STA. 23+75 RT.



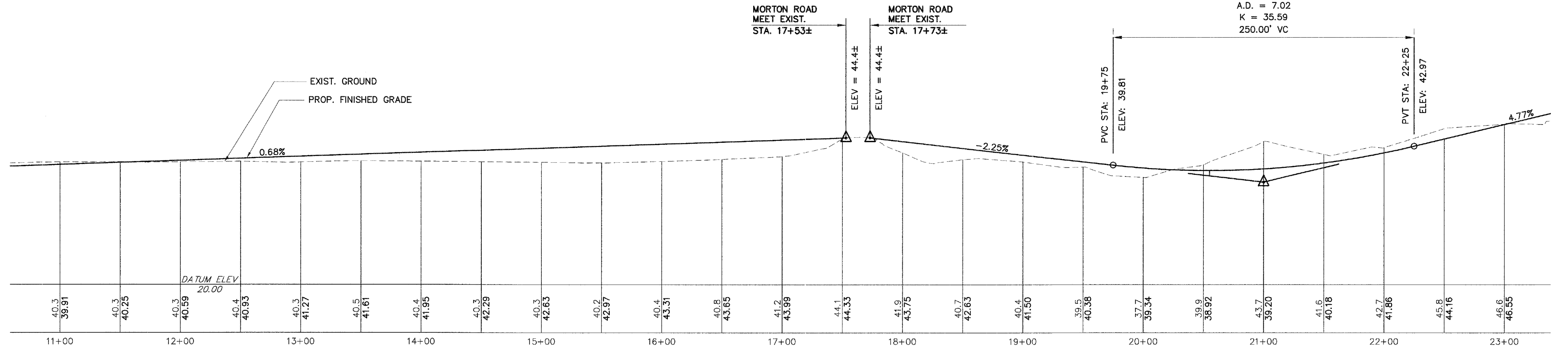
T.B.M. # 3
NAIL SET 8" PINE
STA. 11+50± RT.
ELEVATION = 46.64

T.B.M. # 4
NAIL SET 8" PINE
STA. 15+18± RT.
ELEVATION = 42.21

T.B.M. # 5
NAIL SET 12" PINE
STA. 17+92± LT.
ELEVATION = 45.94

L.P. ELEV = 38.91
L.P. STA = 20+55.11
PVI STA = 21+00
PVI ELEV = 37.00
A.D. = 7.02
K = 35.59
250.00' VC

T.B.M. # 6
NAIL SET IN TREE
STA. 21+53± RT.
ELEVATION = 44.07



SCALE IN FEET
HOR: 0 40 100 200
VERT: 0 8 20 40

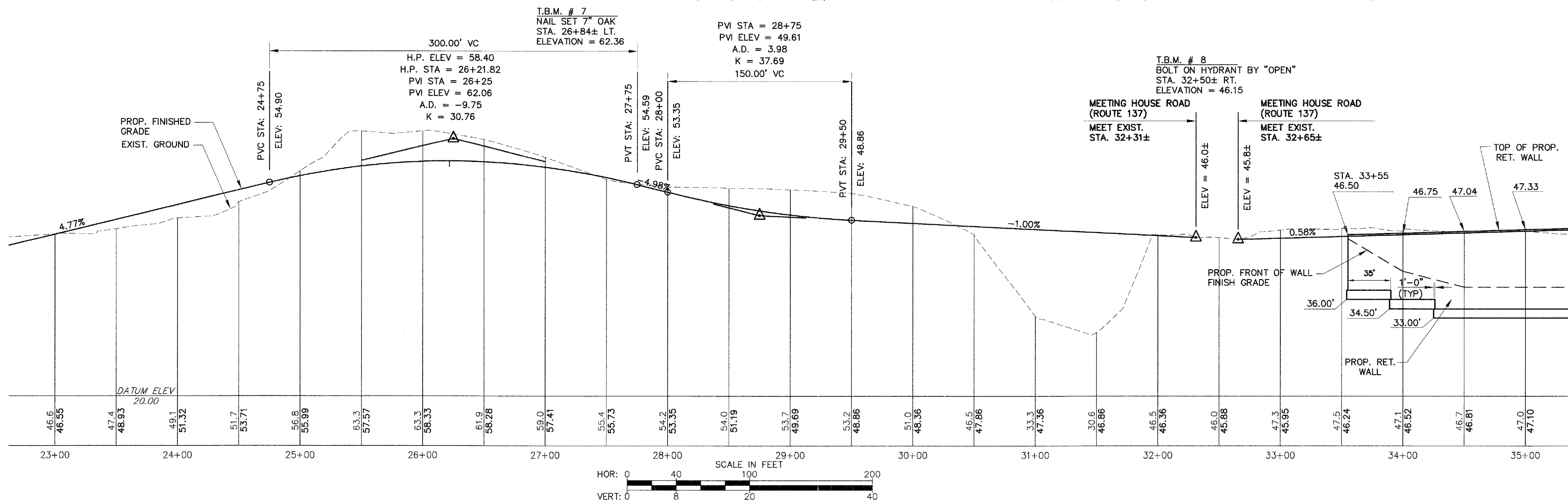
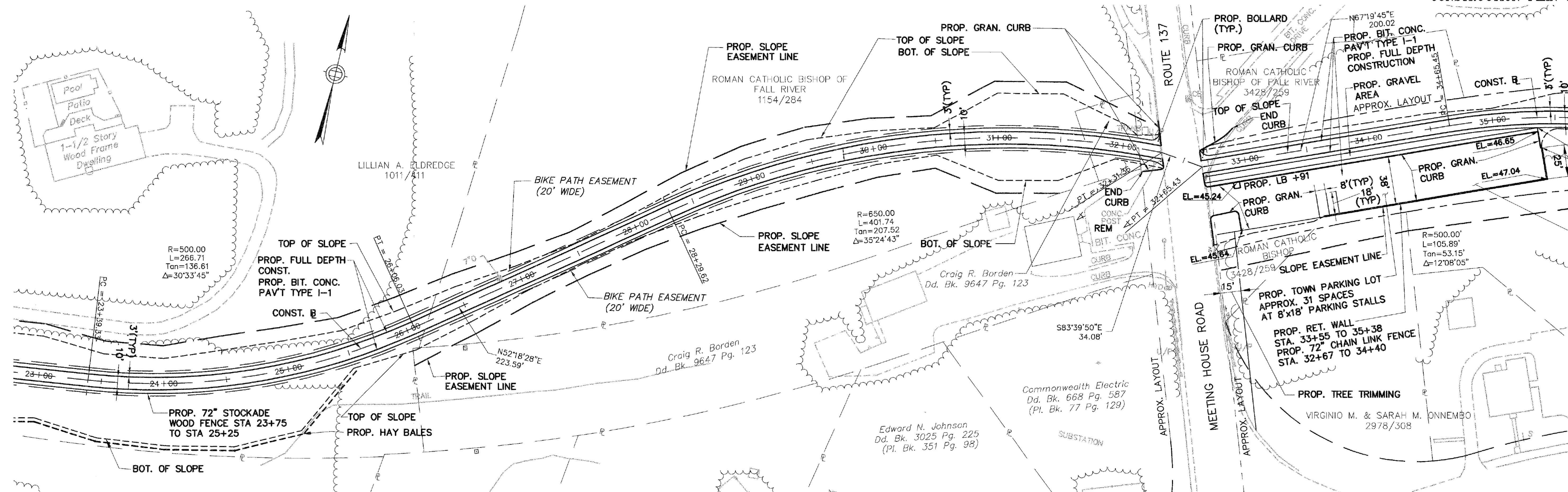
WESTON & SAMPSON ENGINEERS, INC.

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STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	13	98

PROJECT FILE NO. 601466

CONSTRUCTION PLAN & PROFILE



WESTON & SAMPSON ENGINEERS, INC.

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CHATHAM CHATHAM RAIL TRAIL

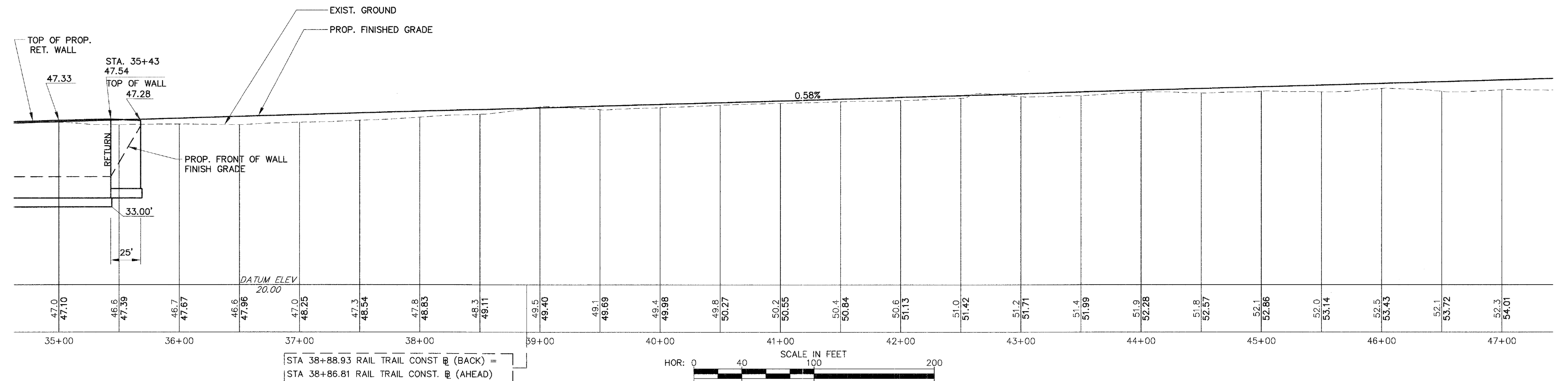
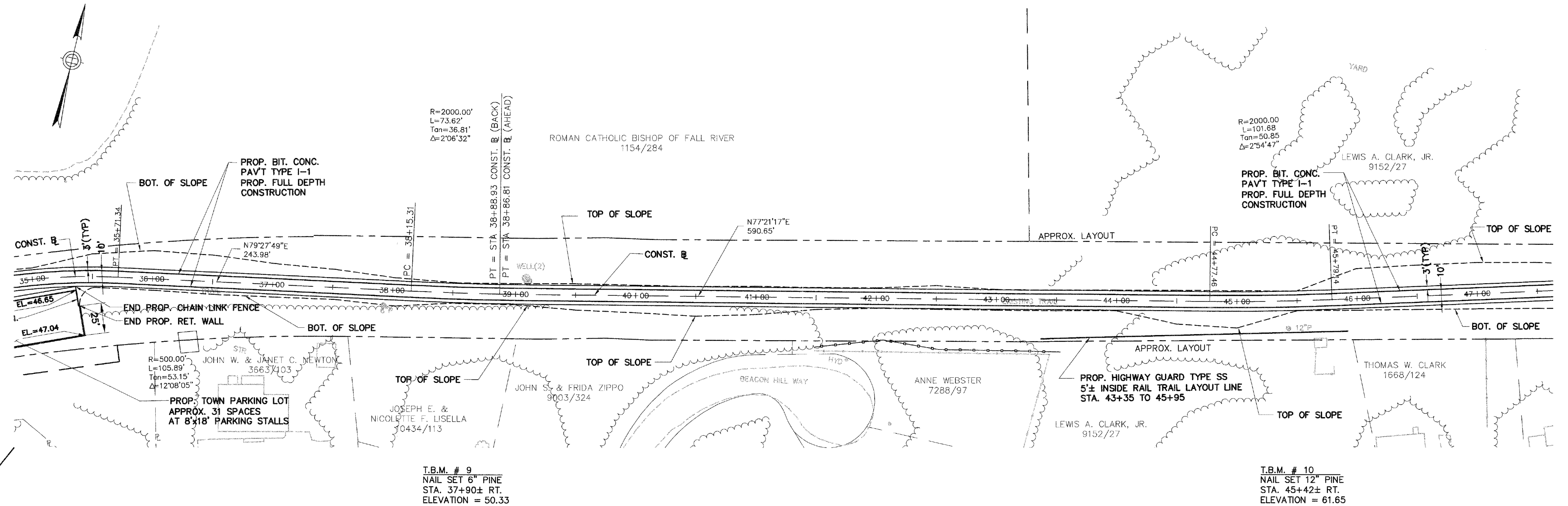
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MASS.	CM-0015(062)X	2002	14	98

PROJECT FILE NO. 601466

CONSTRUCTION PLAN & PROFILE

HIGHWAY GUARD TYPE SS

STA. 32+75 TO STA. 35+37
STA. 43+35 TO STA. 45+95 (SEE PLAN FOR LOCATION)



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WESTON & SAMPSON ENGINEERS, INC.

CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	15	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE

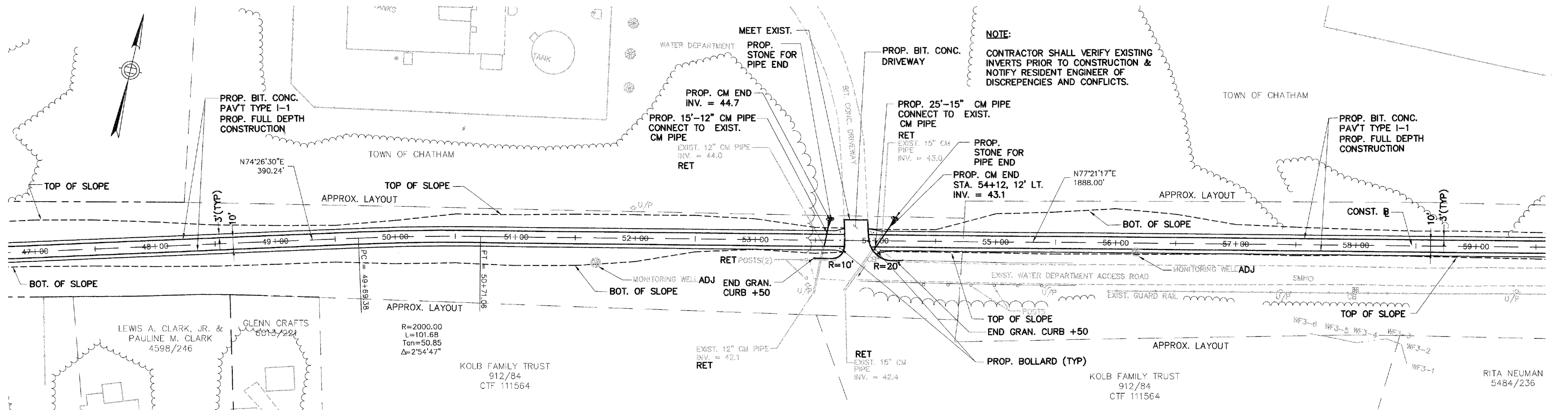
STA. 47+50 TO STA. 52+50 RT.
STA. 54+50 TO STA. 57+50 LT.
STA. 63+00 TO STA. 67+00 RT.

HIGHWAY GUARD TYPE SS

STA. 54+20 TO STA. 63+00 RT. (SEE TYPICAL FOR LOCATION)

NOTE:

CONTRACTOR SHALL VERIFY EXISTING
INVERTS PRIOR TO CONSTRUCTION &
NOTIFY RESIDENT ENGINEER OF
DISCREPANCIES AND CONFLICTS.



T.B.M. # 11
TOP MONIT. WELL
STA. 51+67± LT.
ELEVATION = 48.60

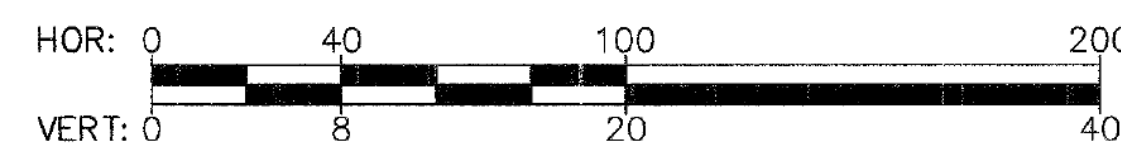
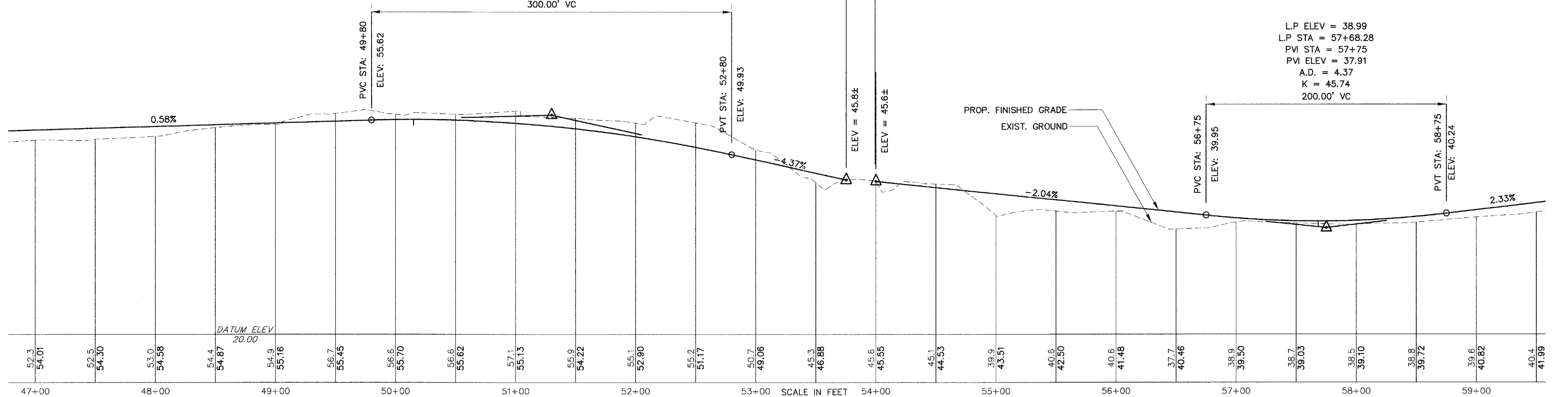
T.B.M. # 12
NAIL SET IN UTILITY POLE
STA. 53+44± RT.
ELEVATION = 46.41

H.P. ELEV = 55.72
H.P. STA = 50+14.95
PVI STA = 51+30
PVI ELEV = 56.48
A.D. = -4.94
K = 60.70
300.00' VC

WATER DEPARTMENT
ACCESS ROAD
MEET EXIST.
STA. 53+75±

WATER DEPARTMENT
ACCESS ROAD
MEET EXIST.
STA. 54+00±

L.P. ELEV = 38.99
L.P. STA = 57+68.28
PVI STA = 57+75
PVI ELEV = 37.91
A.D. = 4.37
K = 45.74
200.00' VC

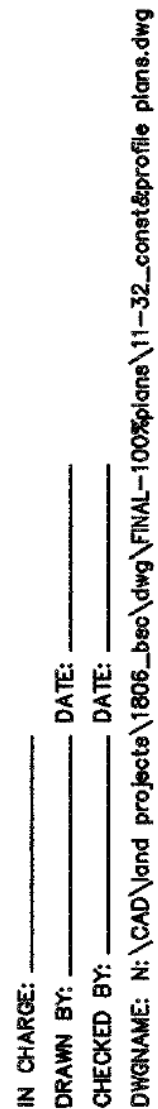


WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____ DATE: _____
DRAWN BY: _____ DATE: _____
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DYNNAME: N:\CAD\proj\proj\1006\1006.dwg

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	16	98
PROJECT FILE NO. 601466				

HIGHWAY GUARD TYPE SS
STA. 67+00 TO STA. 70+40 RT.

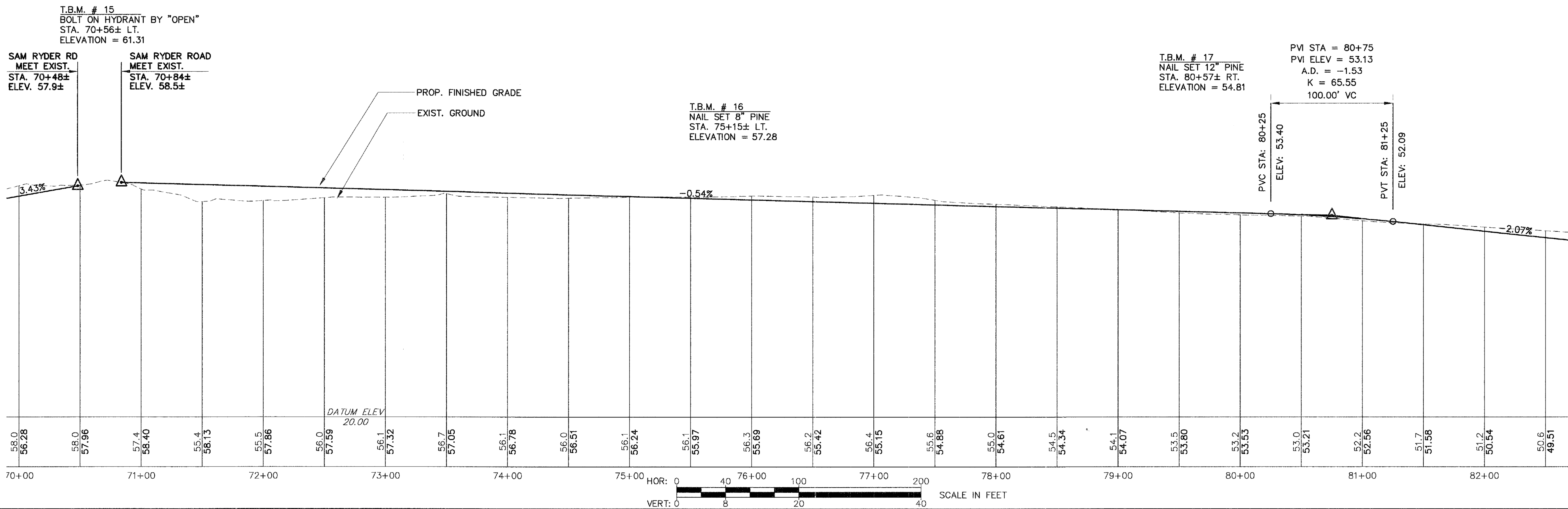
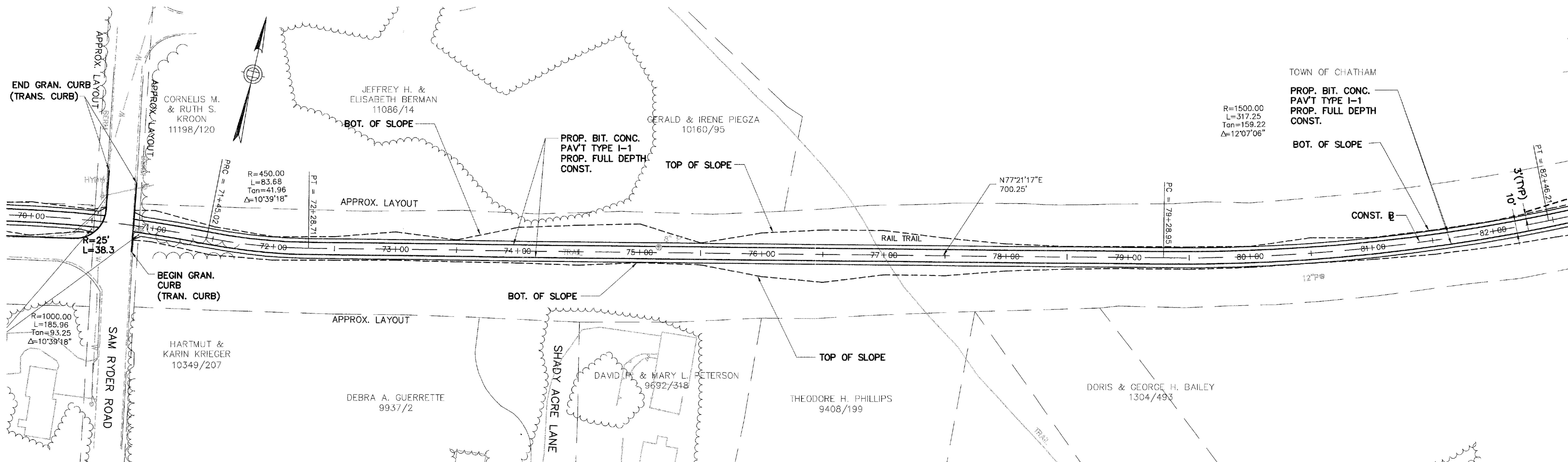


CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	17	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE
STA. 73+75 TO STA. 75+35 LT., RT.



WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____ DATE: _____
DRAWN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
DISNAME: N:\CAD\proj\projects\1006\cham\11-32_const\profile plans.dwg

CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	18	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE

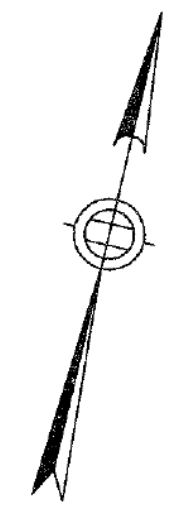
STA. 82+50 TO STA. 86+50 LT.
STA. 83+70 TO STA. 87+25 RT.
STA. 92+80 TO STA. 96+30 RT.

TOWN OF CHATHAM

DORIS & GEORGE H. BAILEY
1304/493

CHRISTOPHER F. & REBECCA DAVIS
2120/309

CHRIST



APPROX. EDGE
OF WETLANDS
WF-4-1
WF-4-2
WF-4-3
WF-4-4

PROP. BIT. CONC.
PAV'T TYPE I-1
PROP. FULL DEPTH
CONST.

BOT. OF SLOPE
PROP. SILT FENCE
& HAY BALES

N65°14'12"E
1047.68'

CONST. B

BOT. OF SLOPE

BOT. OF SLOPE

TOP OF SLOPE

TOP OF SLOPE

PROP. BIT. CONC.
PAV'T TYPE I-1
PROP. FULL DEPTH
CONST.

CONST. B

BOT. OF SLOPE

APPROX. LAYOUT

BOT. OF SLOPE

L.P. ELEV = 46.27
L.P. STA = 84+88.25
PVI STA = 84+50
PVI ELEV = 45.38
A.D. = 3.16
K = 79.01
250.00' VC

PVC STA: 83+25
ELEV: 47.96

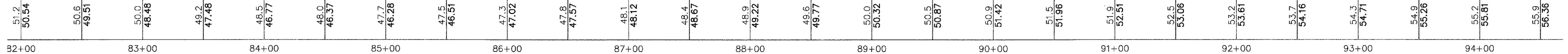
PVT STA: 85+75
ELEV: 46.75

DATUM ELEV
20.00

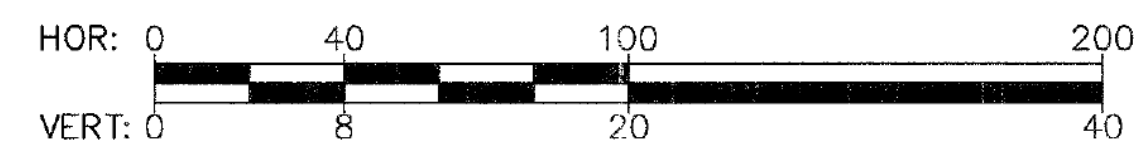
PROP. FINISHED GRADE
EXIST. GROUND

1.10%

-2.07%



SCALE IN FEET



IN CHARGE: _____ DATE: _____
DRAWN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
DRAWING: N:\CAD\land projects\1000_bac\veg\FINAL-1000plans\11-32_const&profile_plans.dwg

WESTON & SAMPSON ENGINEERS, INC.

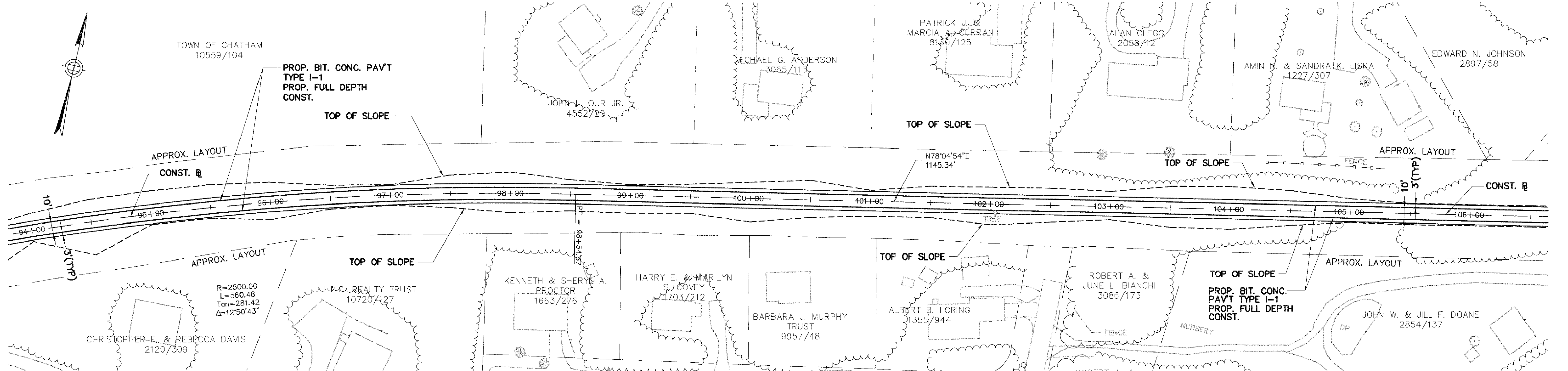
CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	19	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE

STA. 92+80 TO STA. 96+30 RT.
STA. 94+00 TO STA. 96+30 LT.



T.B.M. # 19
NAIL SET IN TREE
STA. 102+04± RT.
ELEVATION = 67.33

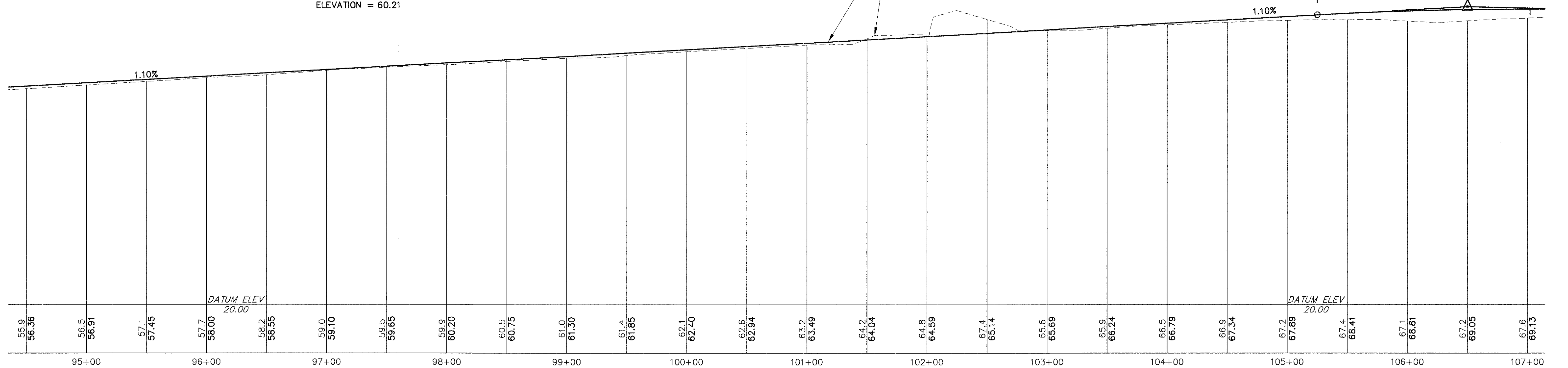
T.B.M. # 18
STAKE & NAIL SET
STA. 97+00± LT.
ELEVATION = 60.21

PROP. FINISHED GRADE
EXIST. GROUND

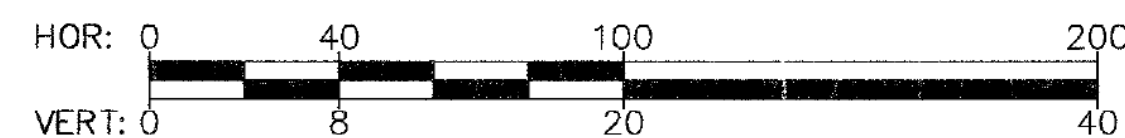
250.00' VC

H.P. ELEV = 69.13
H.P. STA = 107+02.21
PVI STA = 106+50
PVI ELEV = 69.53
A.D. = -1.55
K = 161.40

PVC STA: 105+25
ELEV: 68.16

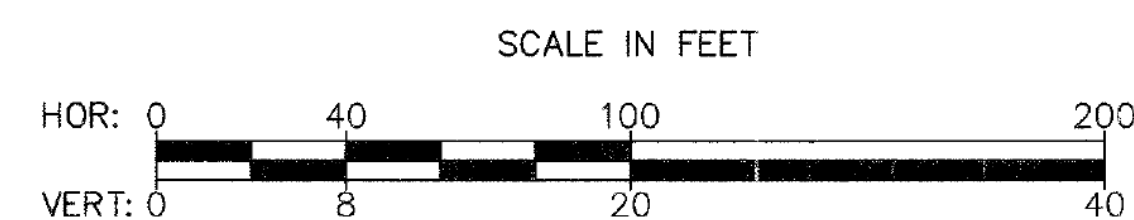
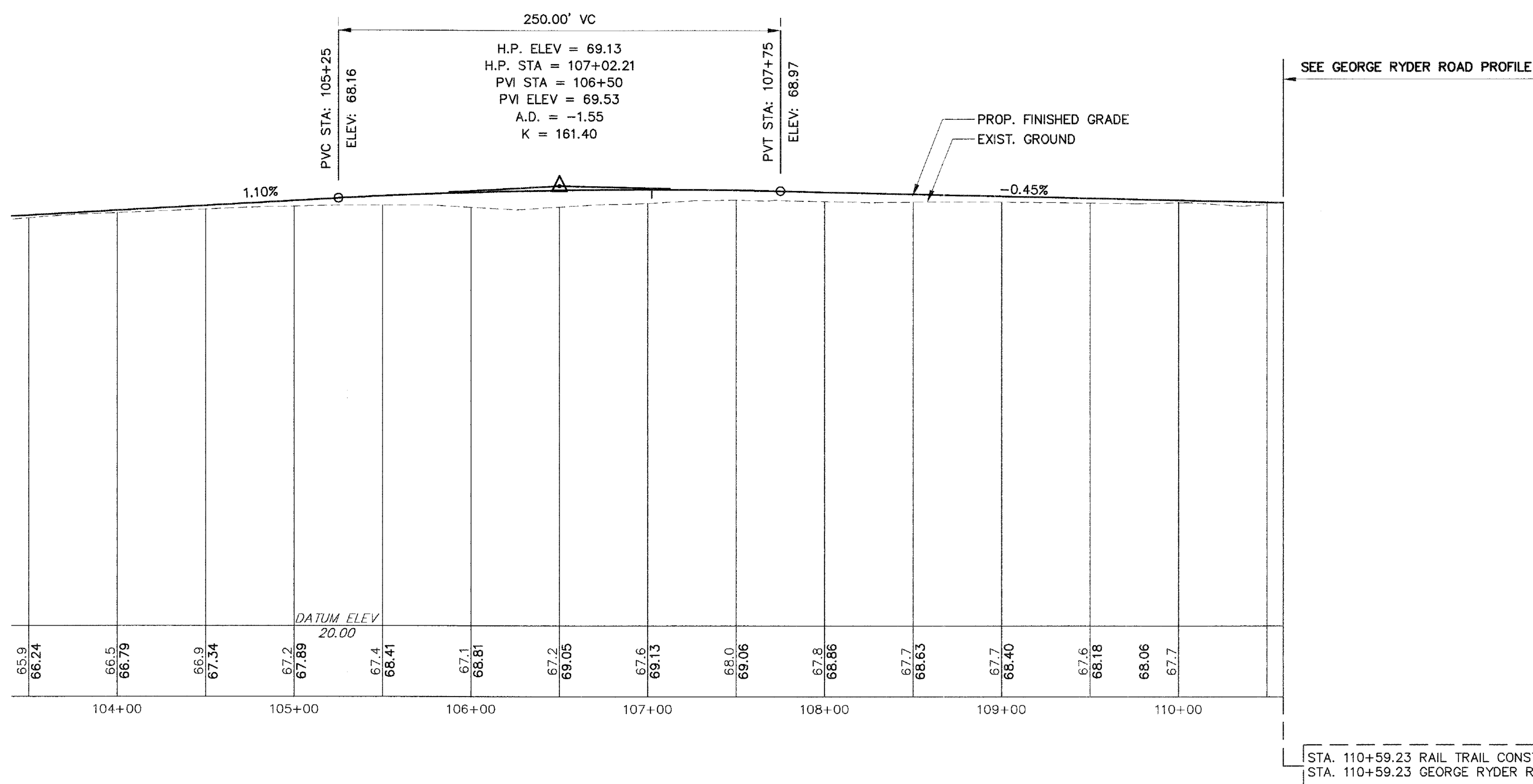
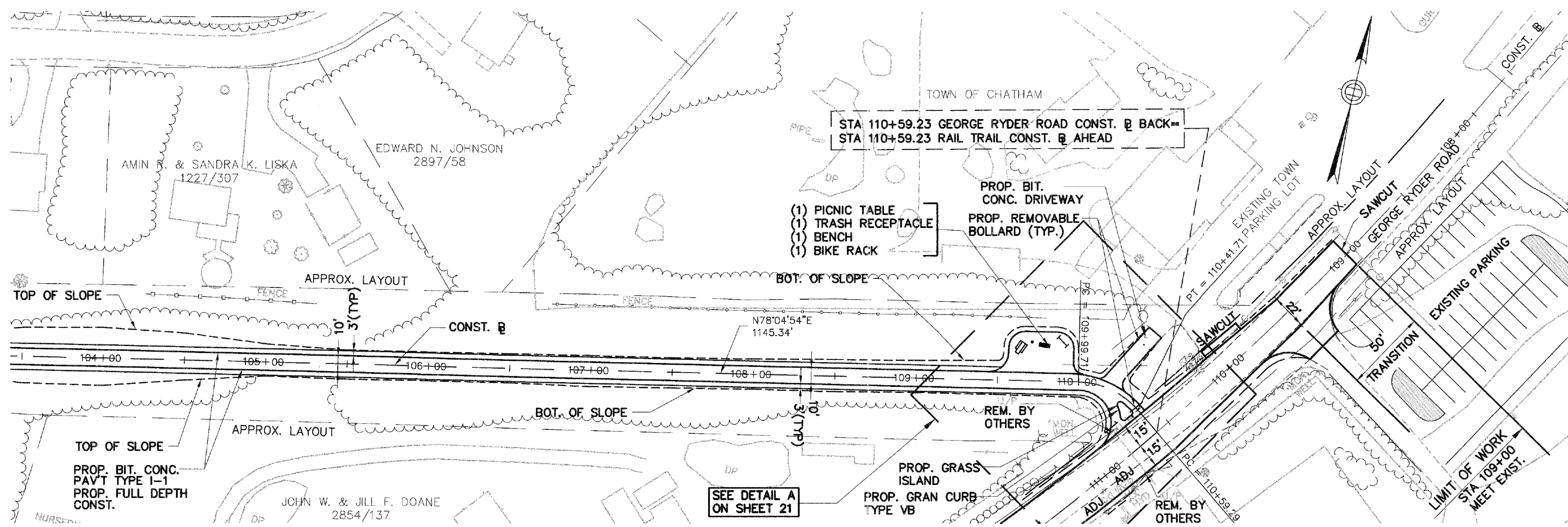


SCALE IN FEET



WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____ DATE: _____
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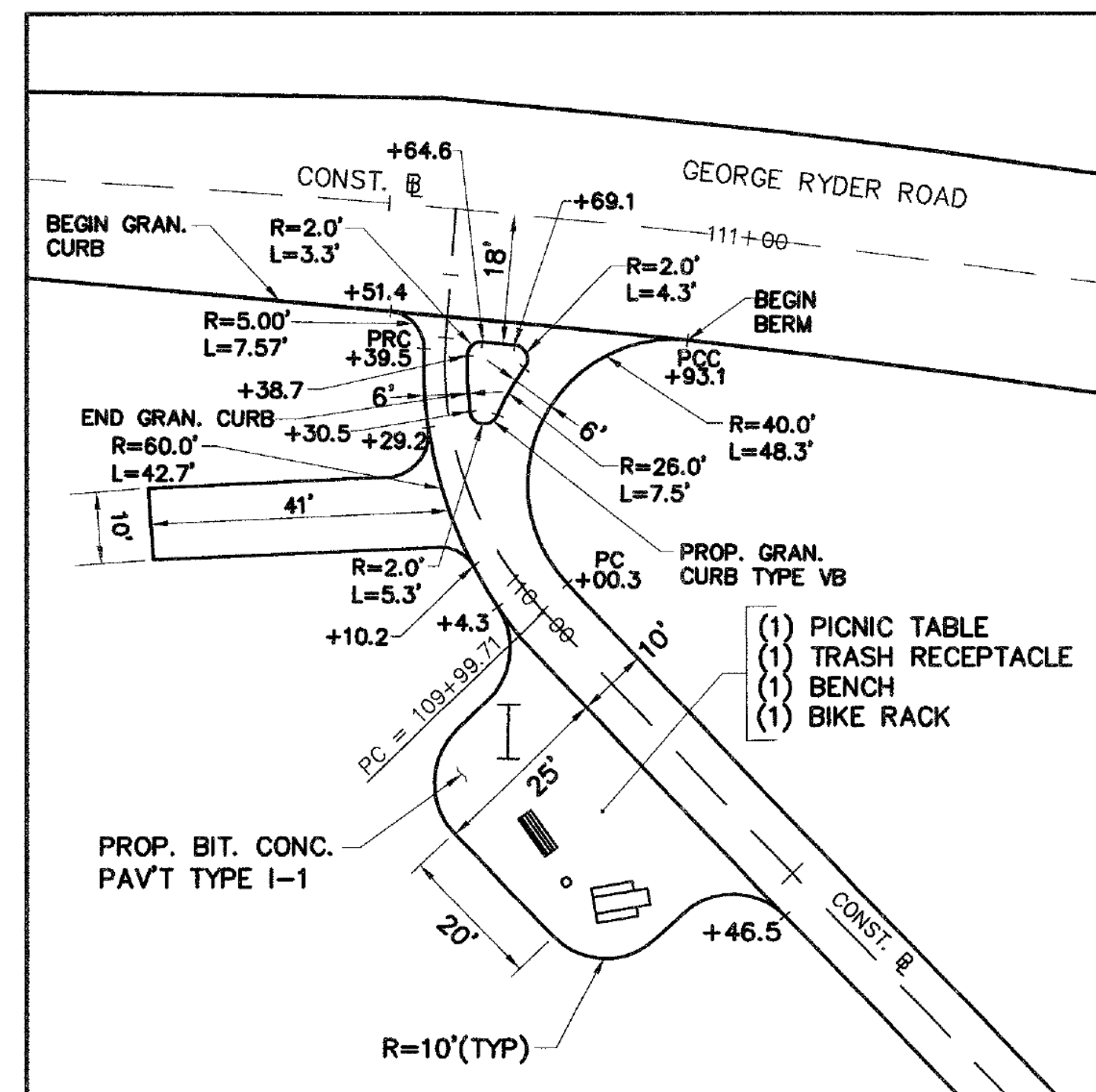


FOR GEORGE RYDER ROAD CONST. PLAN AND PROFILE - SEE SHEETS 21 & 22

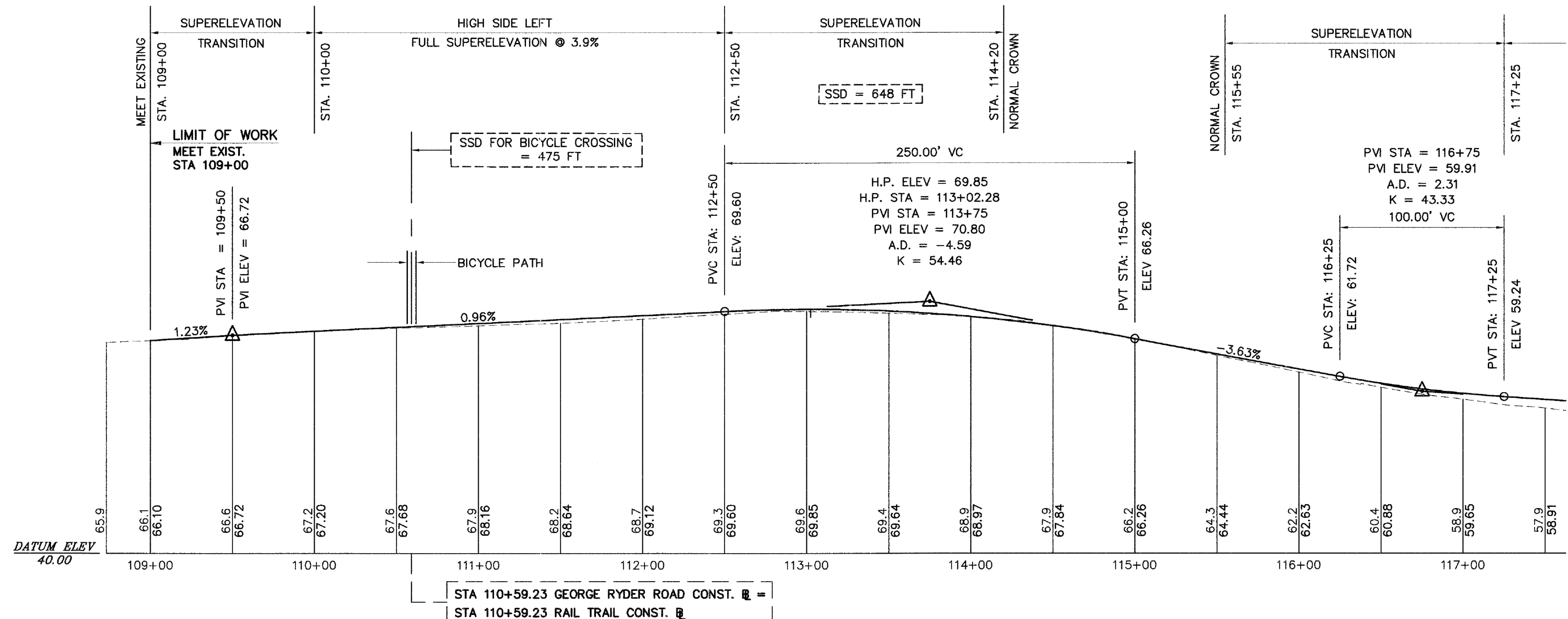
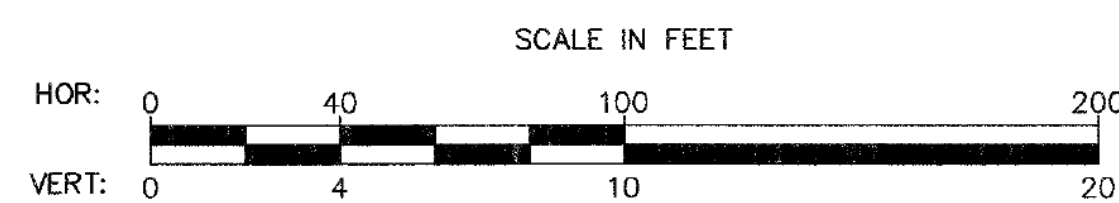
STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	21	98
PROJECT FILE NO. 601466				

[illegible]

CURVE	RADIUS	LENGTH
C1	94.50	30.29
C2	2.00	5.60
C3	5.00	7.64
C4	285.50	113.31
C5	280.00	111.17
C6	4.40	13.82
C7	10.00	15.71
C8	100.00	47.21
C9	105.50	49.81
C10	100.00	22.54
C11	94.50	51.19
C12	2.00	5.75



DETAIL A
SCALE: 1" = 20'



WESTON & SAMPSON ENGINEERS, INC.

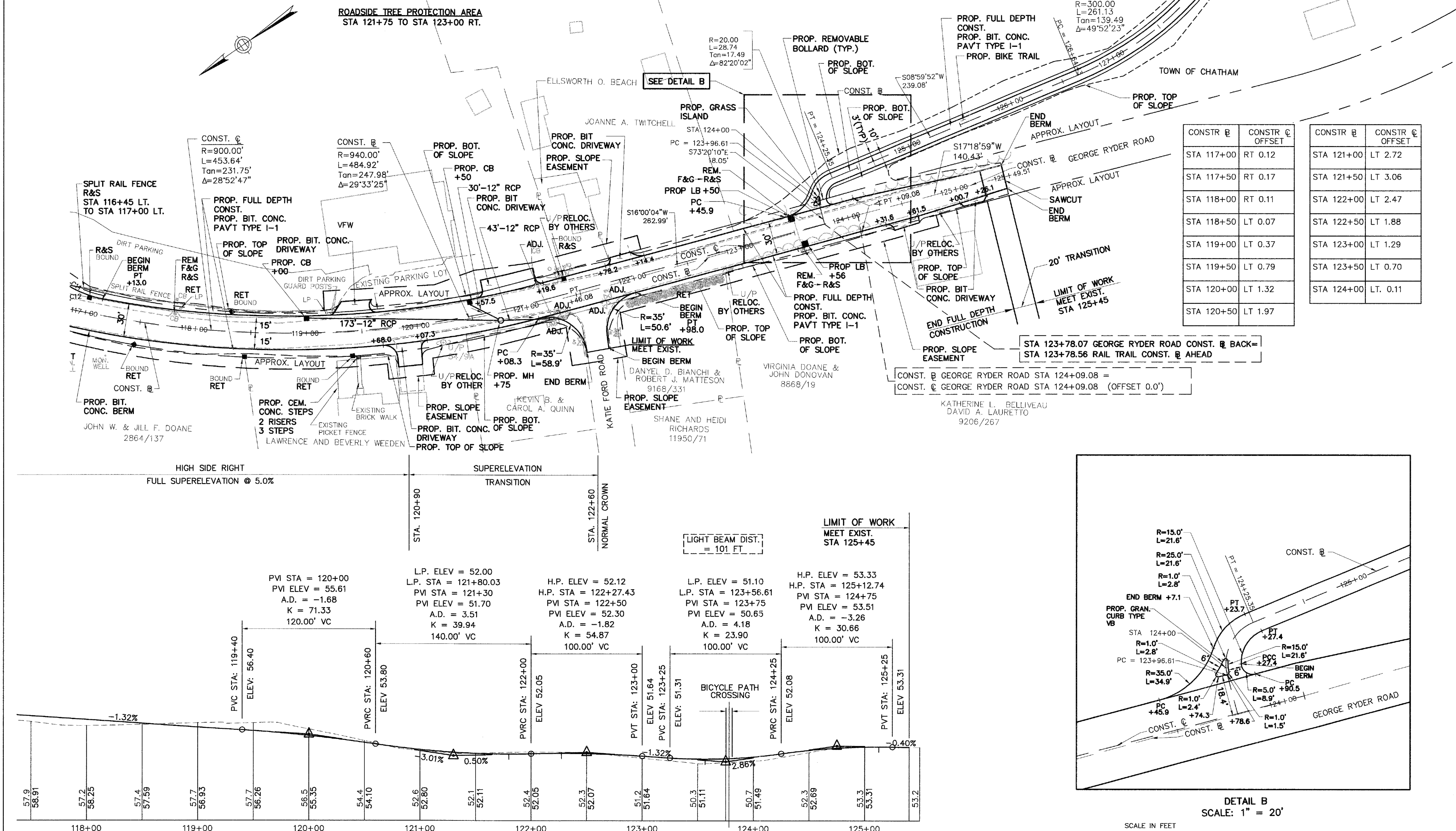
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CHATHAM
CHATHAM RAIL TRAIL

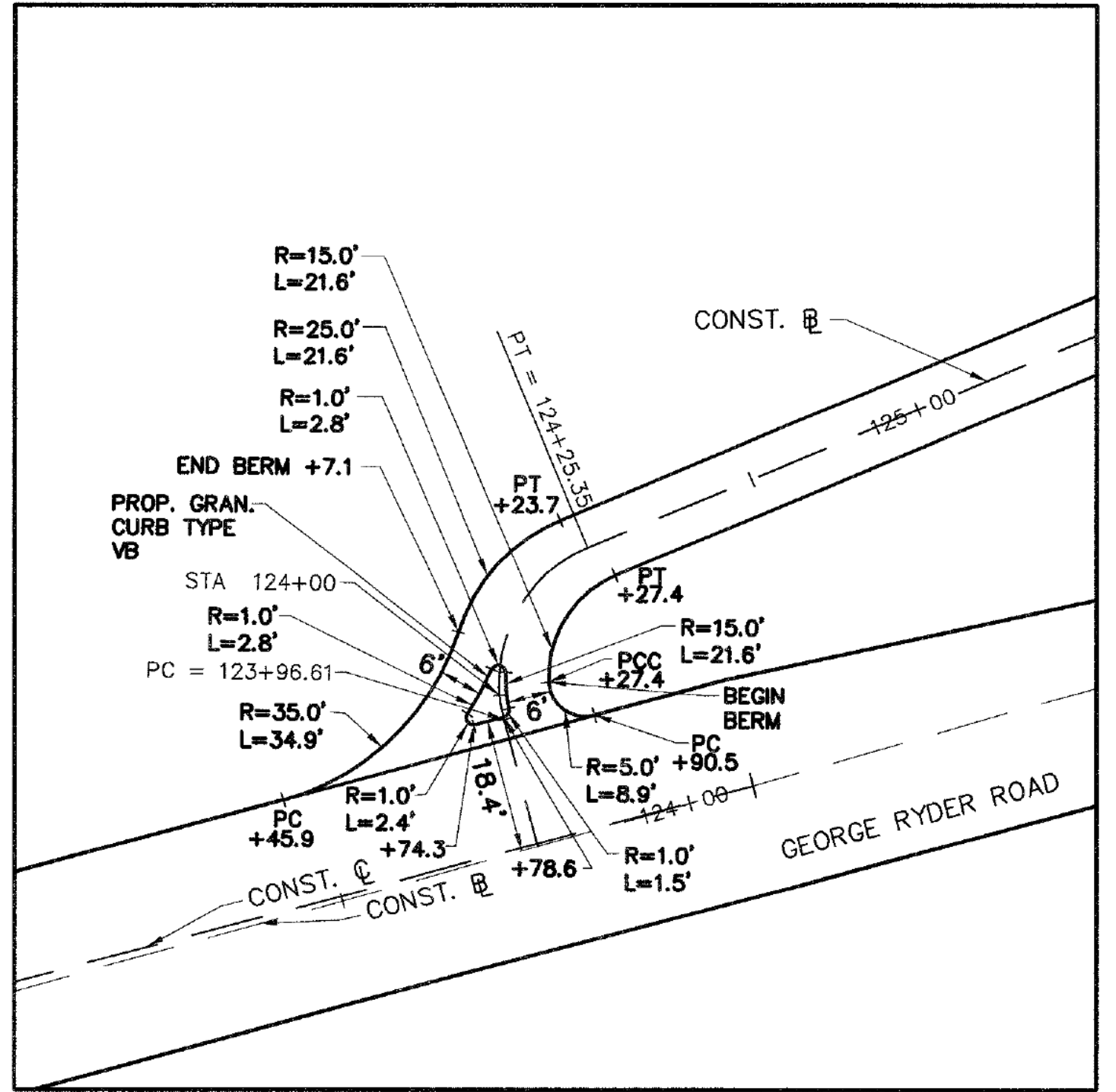
STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	22	98

PROJECT FILE NO. 601466

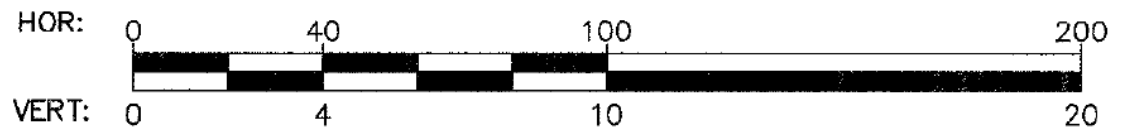
GEORGE RYDER ROAD
CONSTRUCTION PLAN



CONSTR. E	CONSTR. E OFFSET	CONSTR. E	CONSTR. E OFFSET
STA 117+00	RT 0.12	STA 121+00	LT 2.72
STA 117+50	RT 0.17	STA 121+50	LT 3.06
STA 118+00	RT 0.11	STA 122+00	LT 2.47
STA 118+50	LT 0.07	STA 122+50	LT 1.88
STA 119+00	LT 0.37	STA 123+00	LT 1.29
STA 119+50	LT 0.79	STA 123+50	LT 0.70
STA 120+00	LT 1.32	STA 124+00	LT 0.11
STA 120+50	LT 1.97		



DETAIL B
SCALE: 1" = 20'



STA 123+78.07 GEORGE RYDER ROAD CONST. E BACK=
STA 123+78.56 RAIL TRAIL CONST. E AHEAD

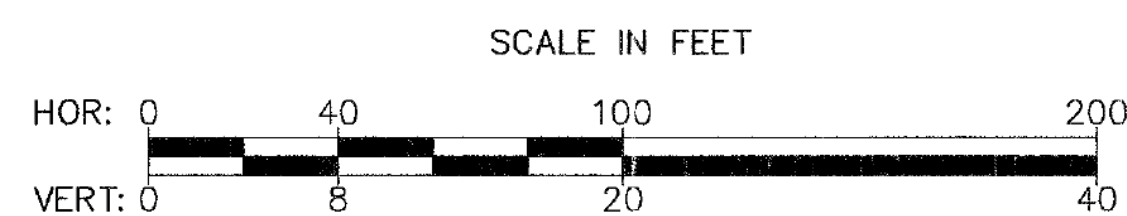
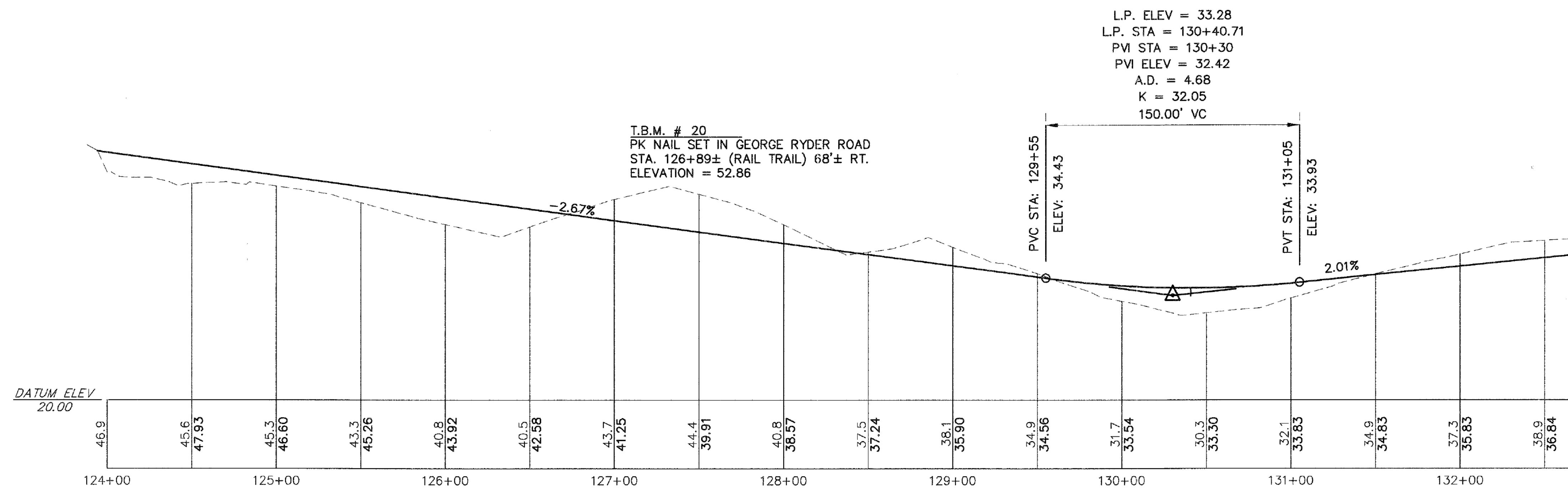
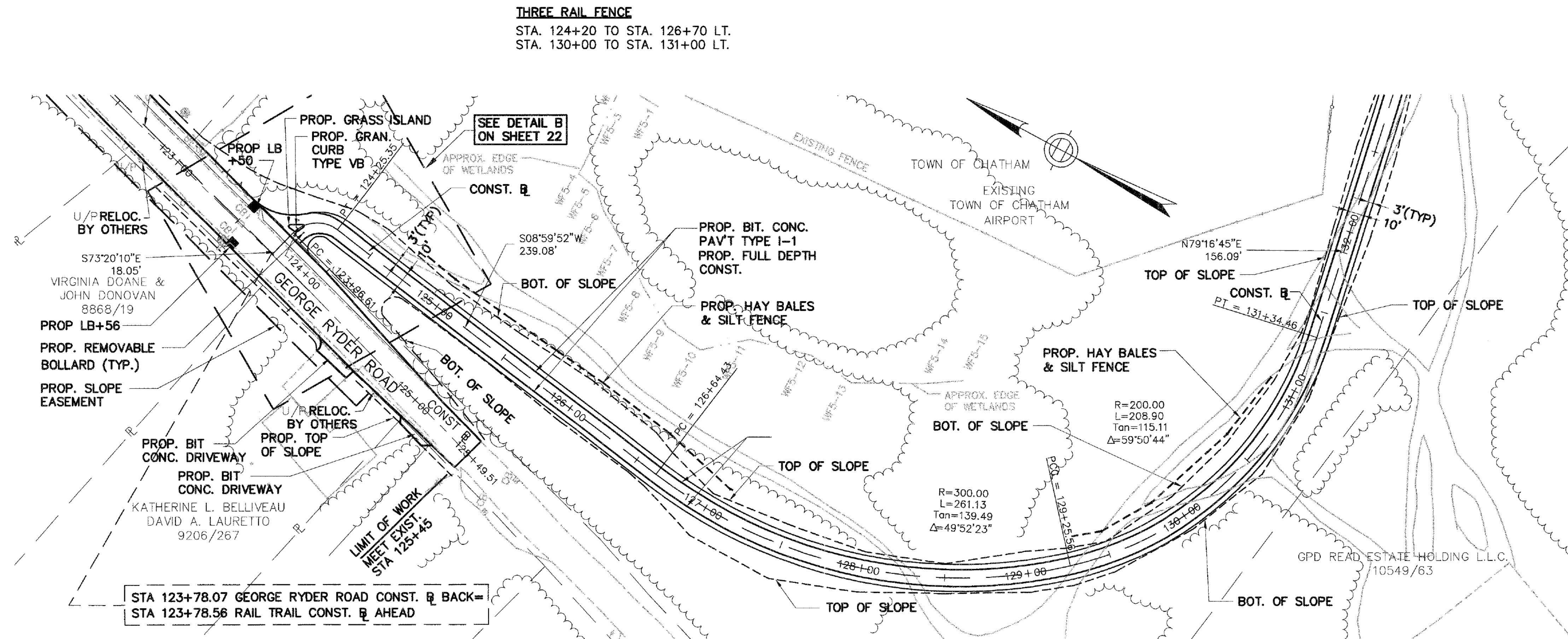
WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: _____
D:\CAD\land projects\1806_G.RYDER.dwg

CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	23	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE



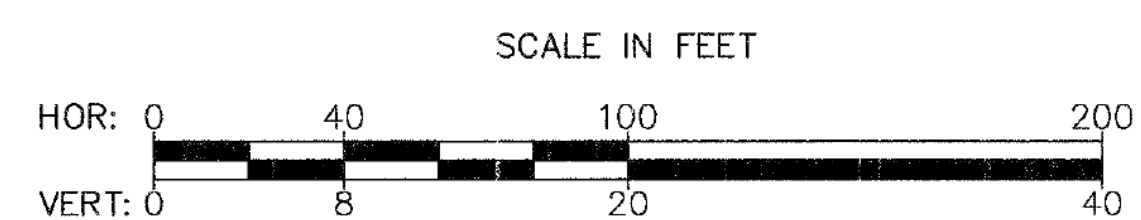
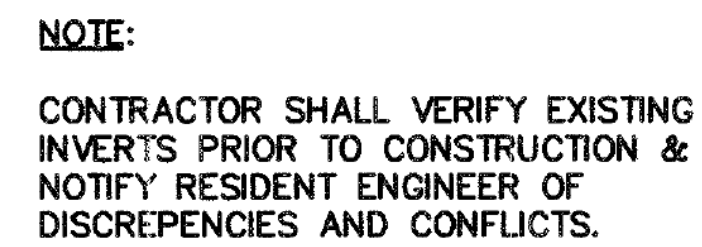
FOR GEORGE RYDER ROAD CONSTRUCTION PLAN AND PROFILE
SEE SHEETS 19 & 20

WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: _____
DATE: _____
DWGNAME: N:\CAD\hard projects\1606_base\veg\find-100\plan\11-32_smt&profile_plans.dwg

DATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ASS.	CM-0015(062)X	2002	24	98
PROJECT FILE NO. 601466				

THREE RAIL FENCE
STA. 133+25 TO STA. 136+50 RT.,LT.
STA. 141+30 TO STA. 143+80 RT.,LT.



IN CHARGE: _____ DATE: _____
DRAWN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____
DWGNAME: N:\CAD\and projects\1808_bec\dwg\Find-100\plans\11-32_const&profile plans.dwg

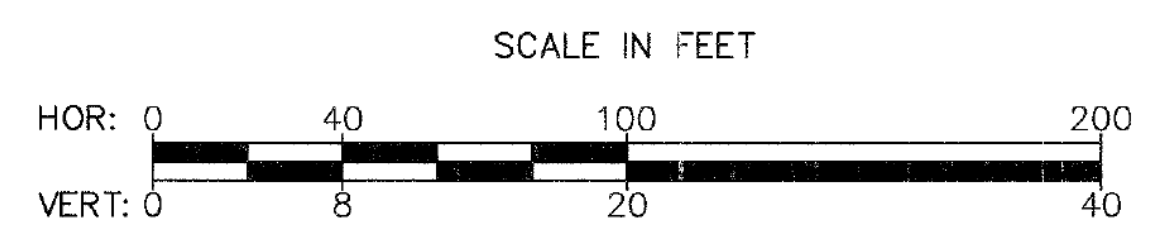
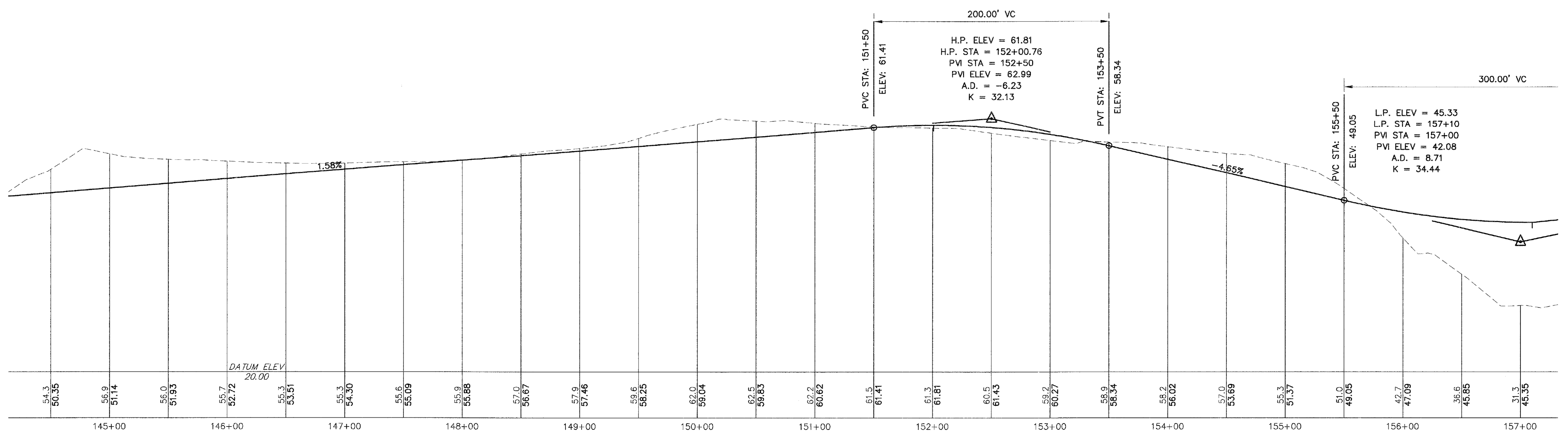
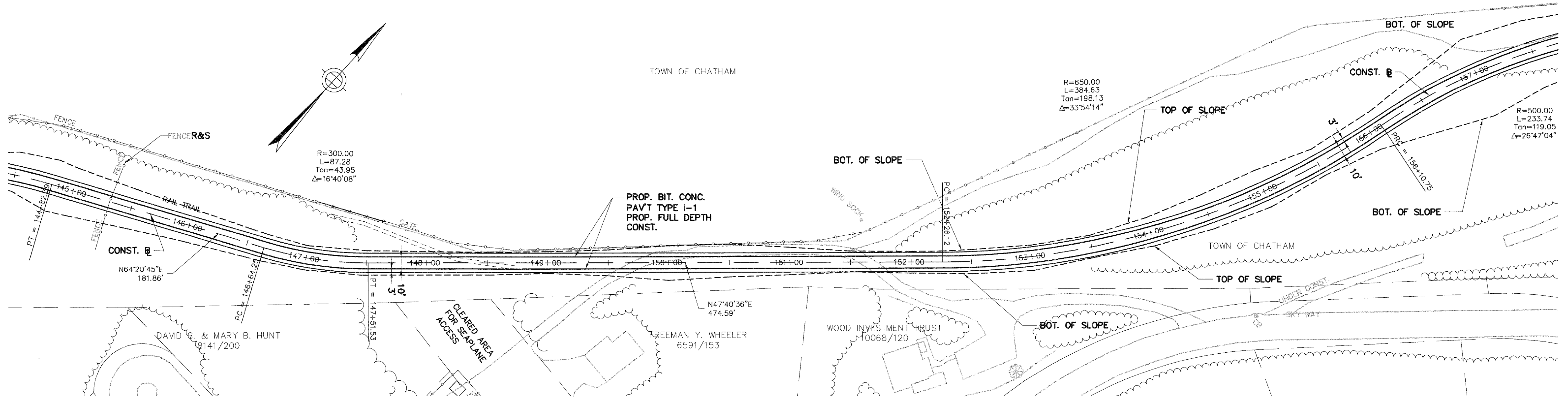
CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	25	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

THREE RAIL FENCE
STA. 155+75 TO STA. 158+75 RT.,LT.

TOWN OF CHATHAM



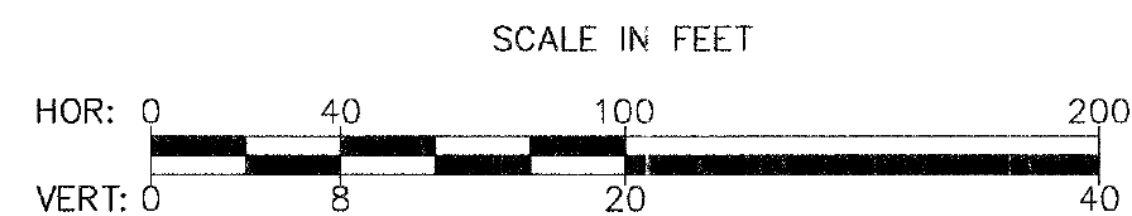
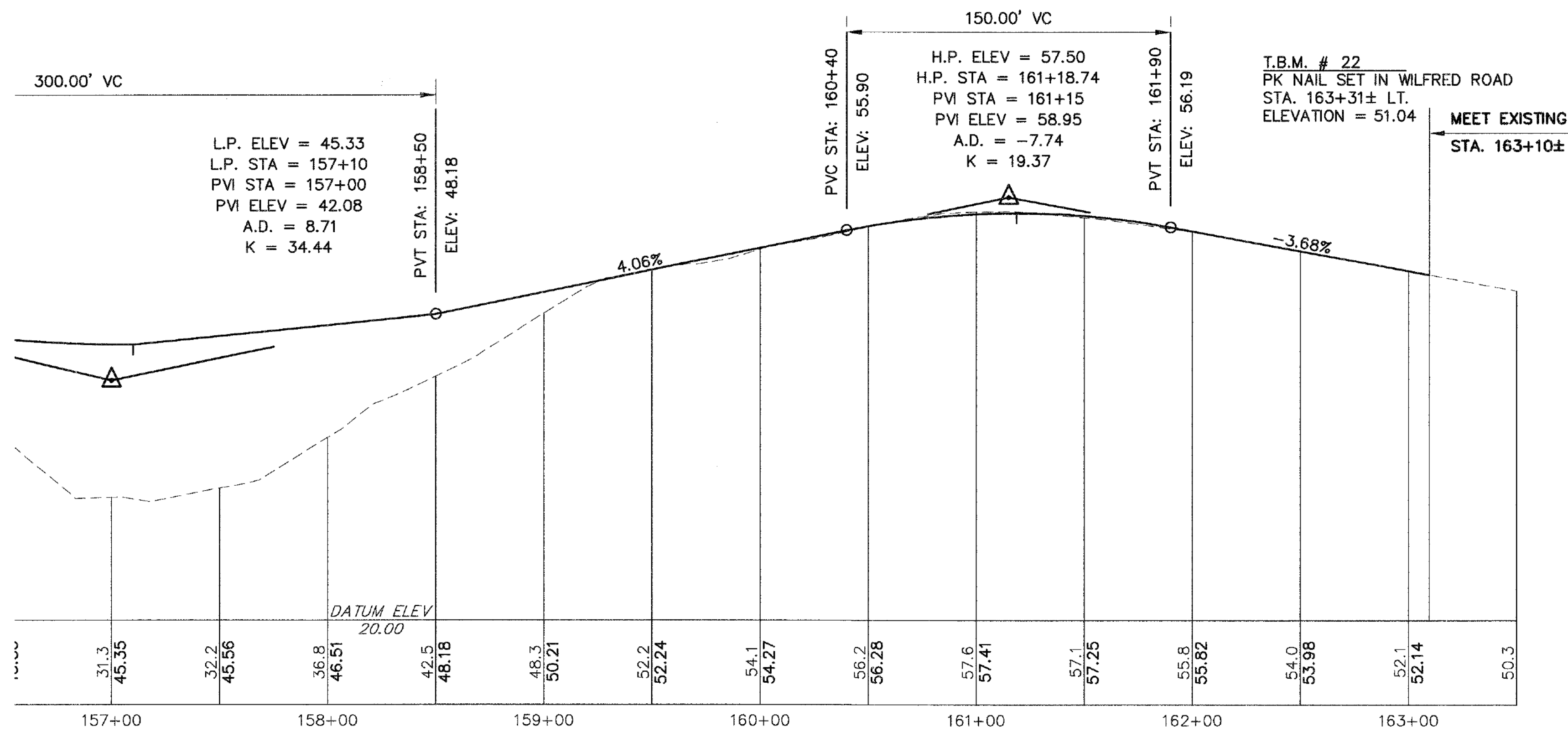
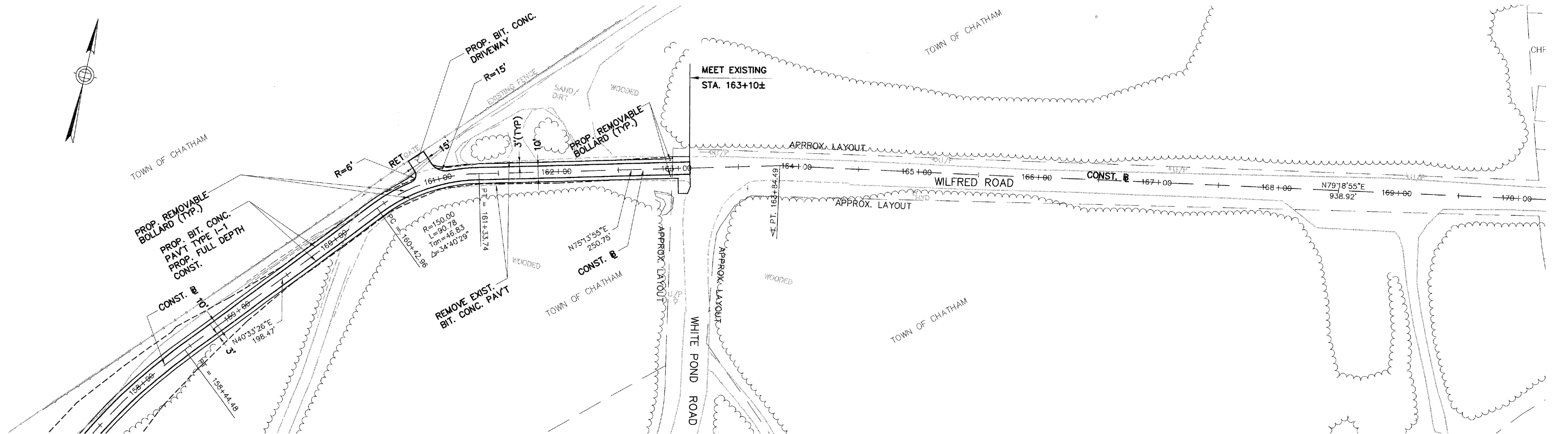
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WESTON & SAMPSON ENGINEERS, INC.

CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	26	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE



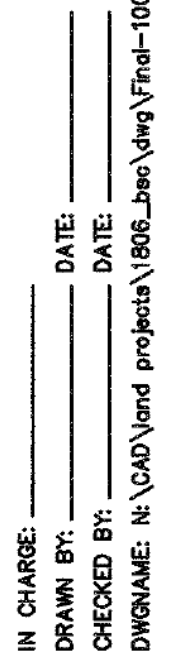
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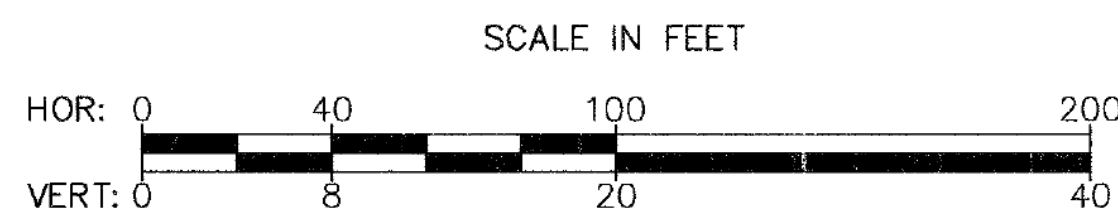
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WESTON & SAMPSON ENGINEERS, INC.

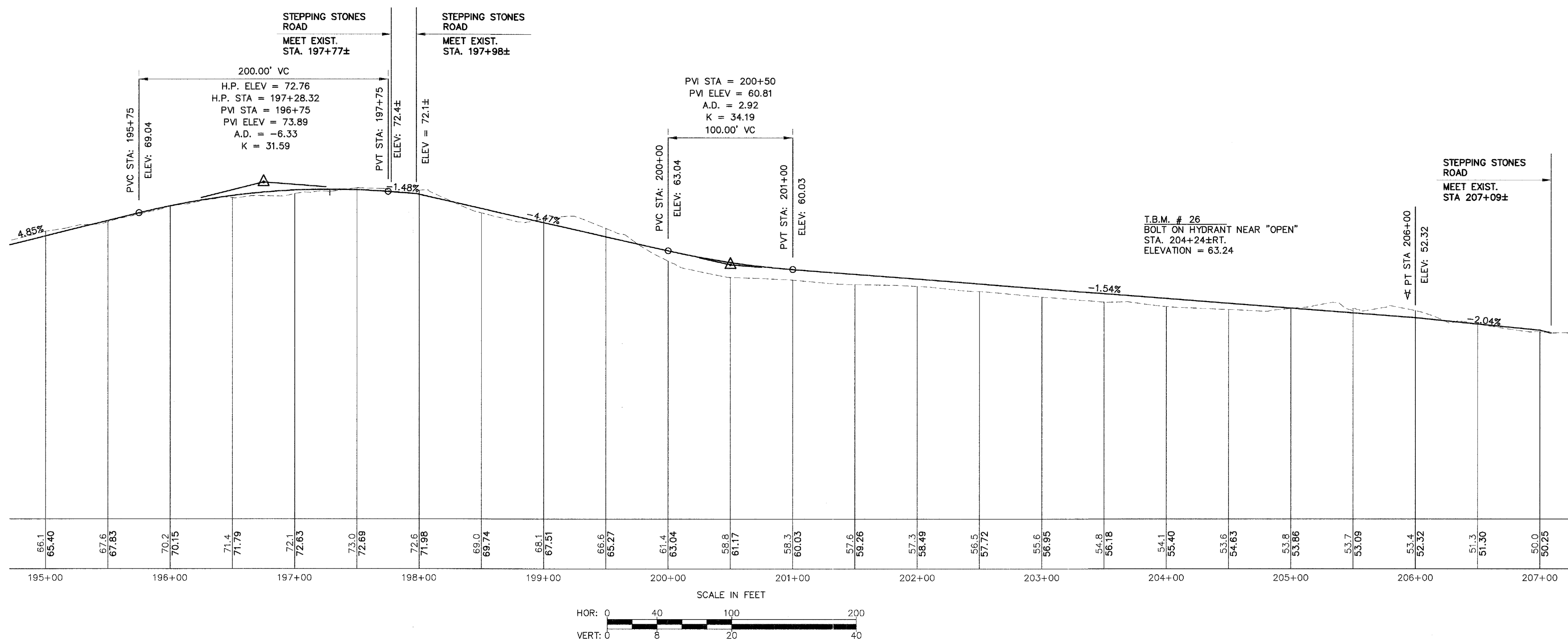
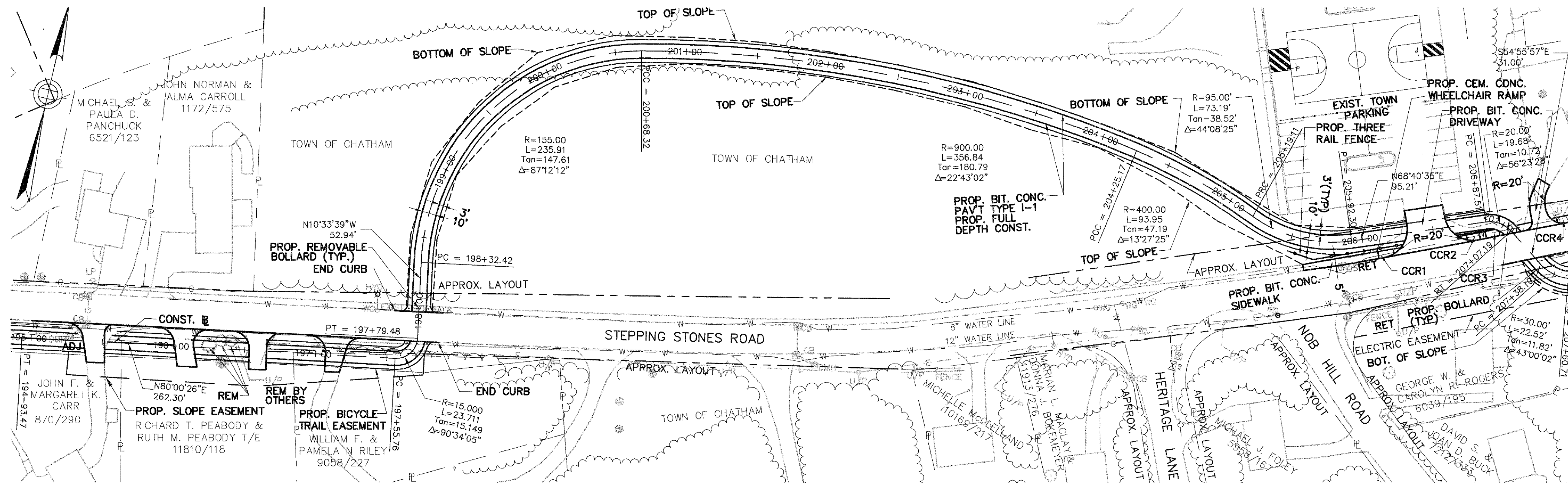
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ASS.	CM-0015(062)X	2002	27	98

PROJECT FILE NO. 601466



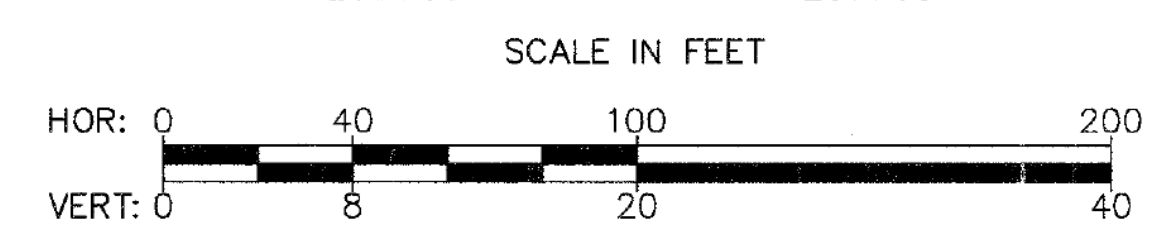


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IN CHARGE: _____ DATE: _____
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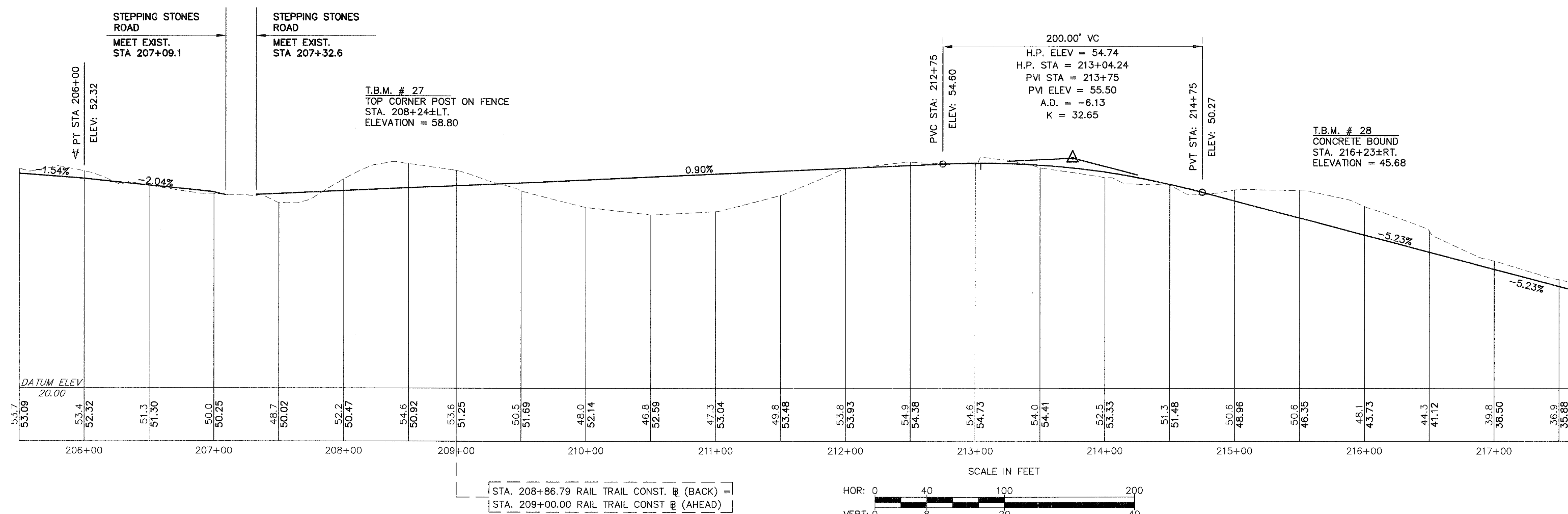
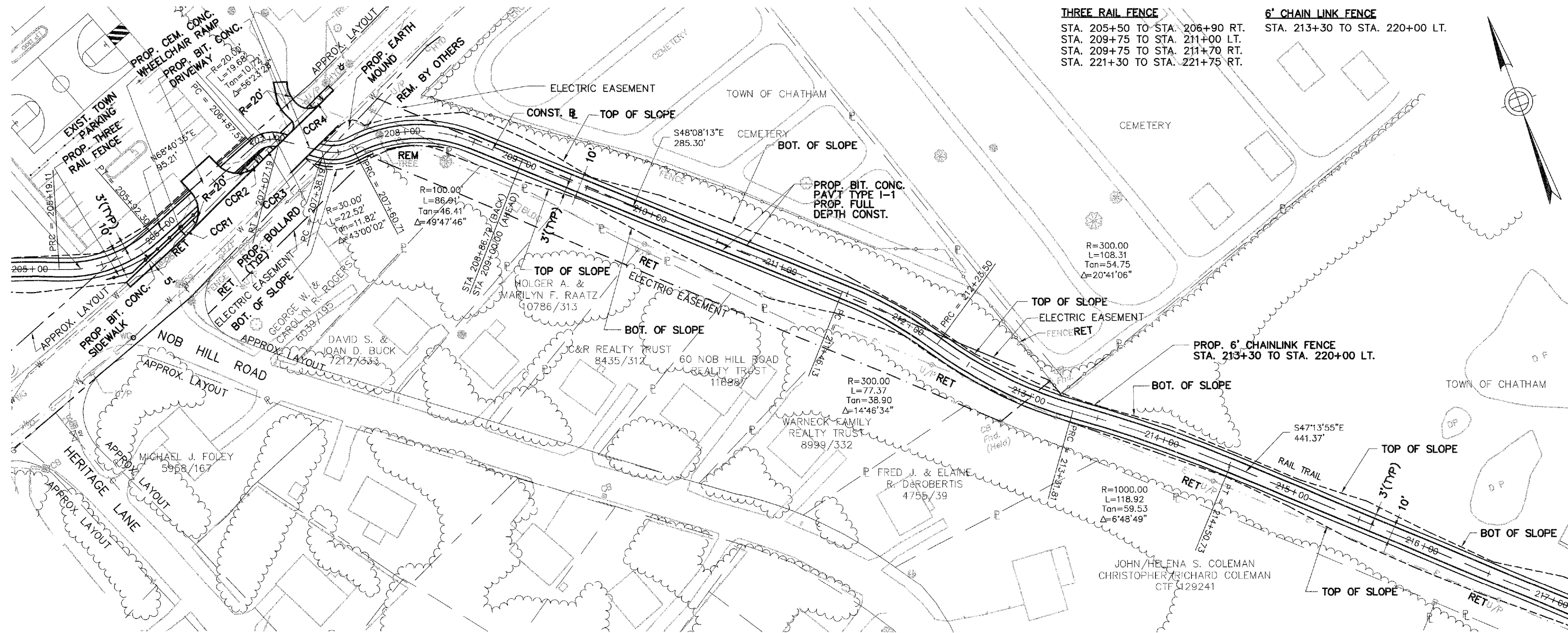
WESTON & SAMPSON ENGINEERS, INC.



CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	31	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE

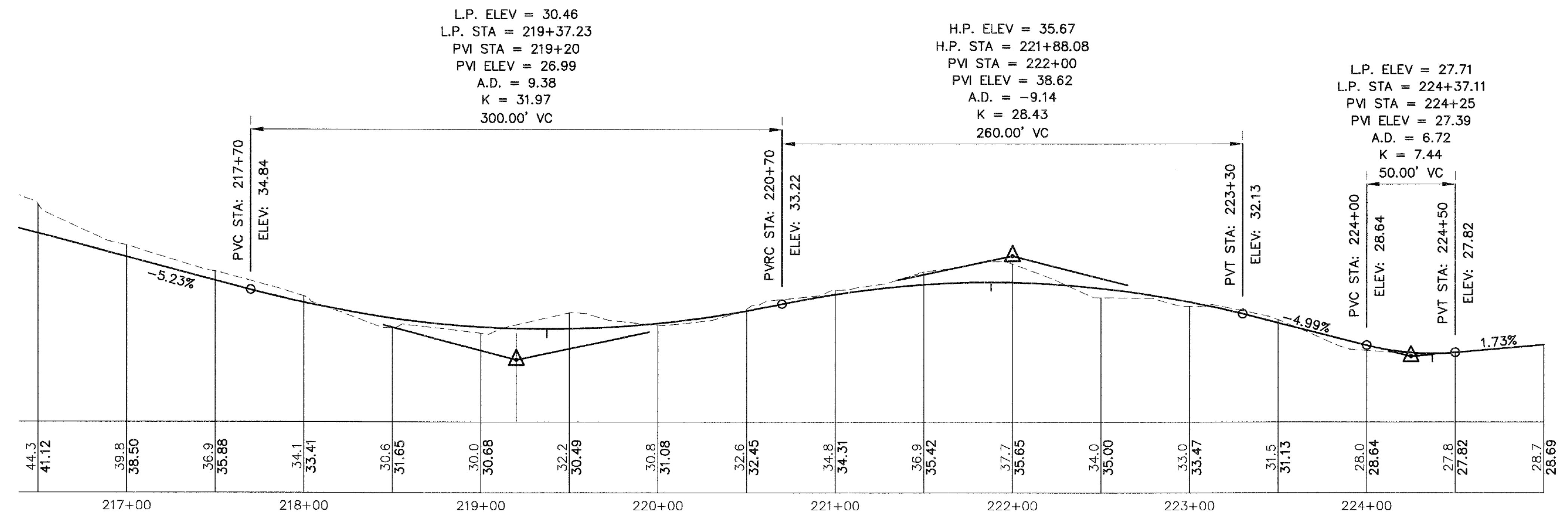
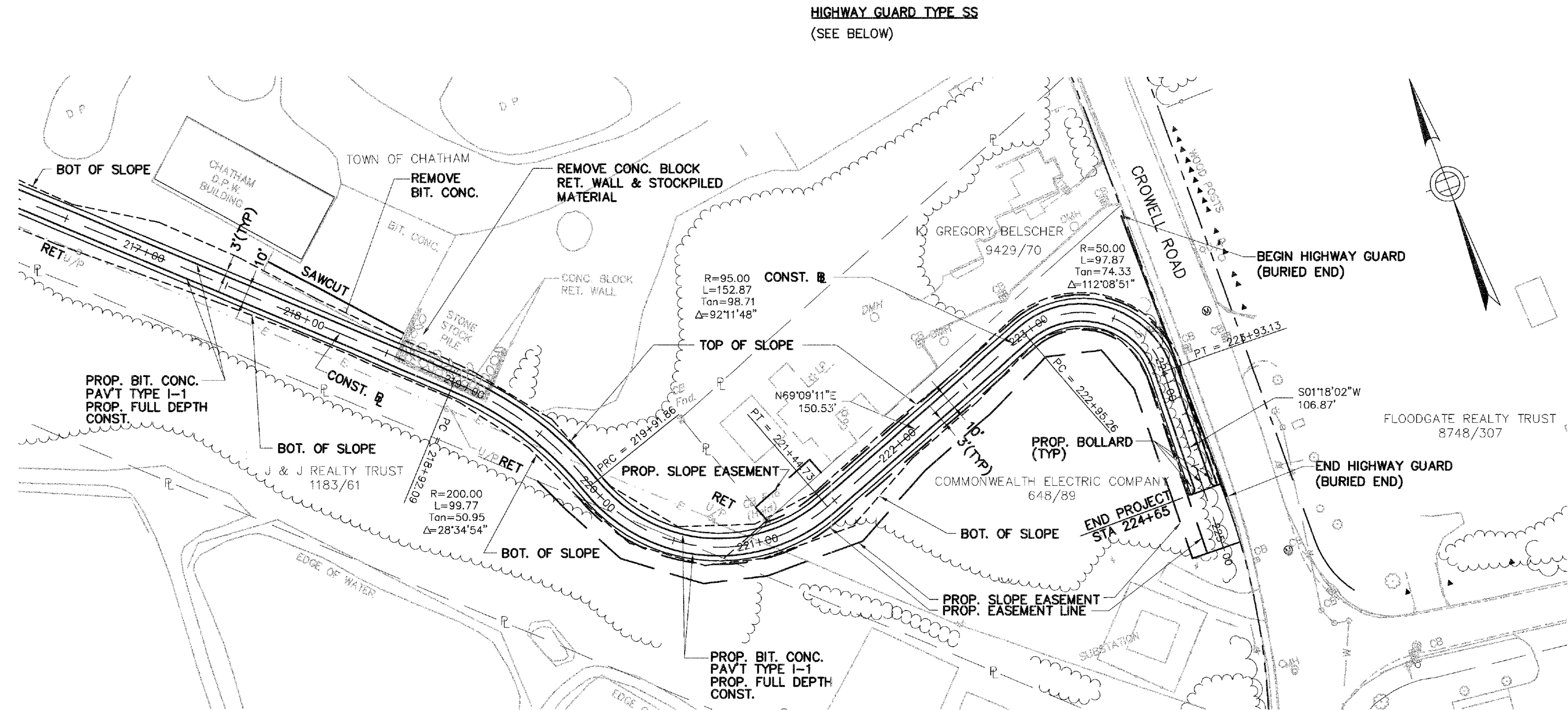


WESTON & SAMPSON ENGINEERS, INC.

CHATHAM CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	32	98
PROJECT FILE NO. 601466				

CONSTRUCTION PLAN & PROFILE



WESTON & SAMPSON ENGINEERS, INC.

IN CHARGE: _____ DATE: _____
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DATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
ASS.	CM-0015(062)X	2001	33	98

PROJECT FILE NO. 601466


PLANT SCHEDULE

ABR/VJ	QY	COMMON NAME	BOTANICAL NAME	SIZE	MHD ITEM #/S
AC	31	SHADBLow SERVICEBERRY	AMELANCHIER CANADENSIS	3-4' HT.	783.036
ACC	1	WHITE FIR	ABIES CONCOLOR	3-4' HT.	772.376
AR	16	SWAMP RED MAPLE	ACER RUBRUM	1-21/2" CAL.	776.522
BN	1	RIVER BIRCH	BETULA NIGRA	1-11/2" CAL.	778.160
CA	15	SWEET PEPPERBUSH	CLETHRA ALNIFOLIA	3-4' HT.	794.710
JV	10	EASTERN RED CEDAR	JUNIPERUS VIRGINIANA	1-2.5' HT.	772.300
IV	15	WINTERBERRY	ILEX VERTICILLATA	18-24" HT.	795.155
KL	23	MOUNTAIN LAUREL	KALMA LATICOLA	2 GAL. CONTAIN.	786.670
MP	33	BAYBERRY	MYRICA PENNSYLVANICA	15-18" HT.	789.321
NS	3	BLACK TUPELO	NYSSA SYLVAICA	1"-1-1/2" CAL.	783.465
PS	10	WHITE PINE	PINUS STROBUS	3-4' HT.	773.430
QA	6	WHITE OAK	QUERCUS ALBA	11/2-2" CAL.	777.327
QR	6	RED OAK	QUERCUS RUBRA	11/2-2" CAL.	777.034
VA	26	LOWBUSH BLUEBERRY	VACCINIUM ANGUSTIFOLIUM	6-9" HT.	789.669
VC	17	HIGHBUSH BLUEBERRY	VACCINIUM CORYMBOSUM	2 GAL. CONTAIN.	789.630
VD	16	ARROWWOOD	VIBURNUM DENTATUM	18-24" HT.	795.009
VJ	27	AM. CRANBERRY VIBURNUM	VIBURNUM TRILOBUM	2 GAL. CONTAIN.	790.430

WESTON & SAMPSON ENGINEERS INC.

IN CHARGE: _____ DATE: _____
DRAWN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

SCALE IN FEET



0 40 100 200

N: \CAD\LAND PROJECTS\1806_BSC\DWG\FINAL-100%PLANS\33_LANDSCAPE PLAN .DWG

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	34	98
PROJECT FILE NO. 601466				

A diagram of a DNA double helix. The top strand is labeled '3'' at its left end and '5'' at its right end. The bottom strand is labeled '5'' at its left end and '3'' at its right end. The two strands are connected by vertical lines representing base pairs. The label 'SYCL' is positioned between the two strands, closer to the top strand.

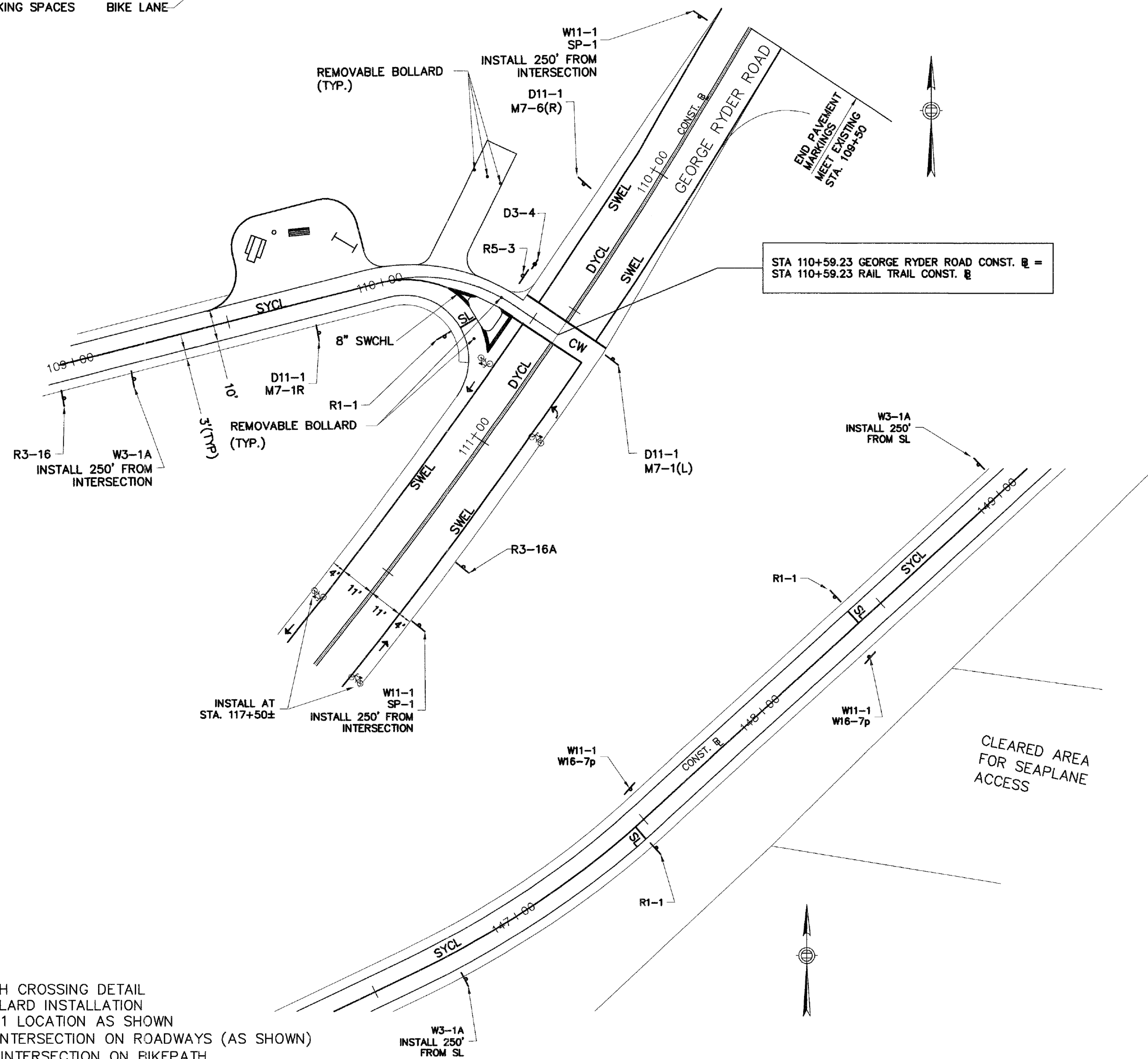
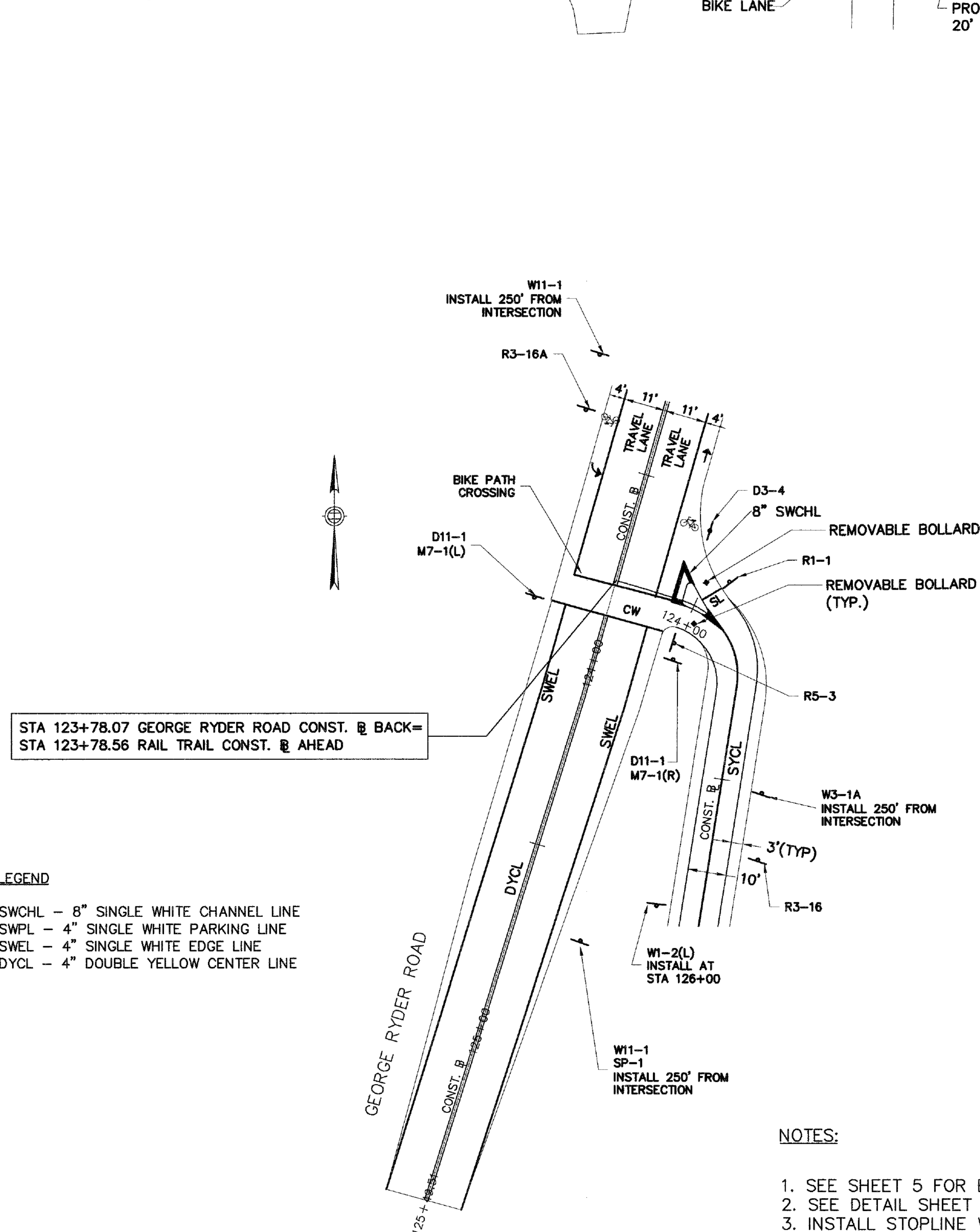
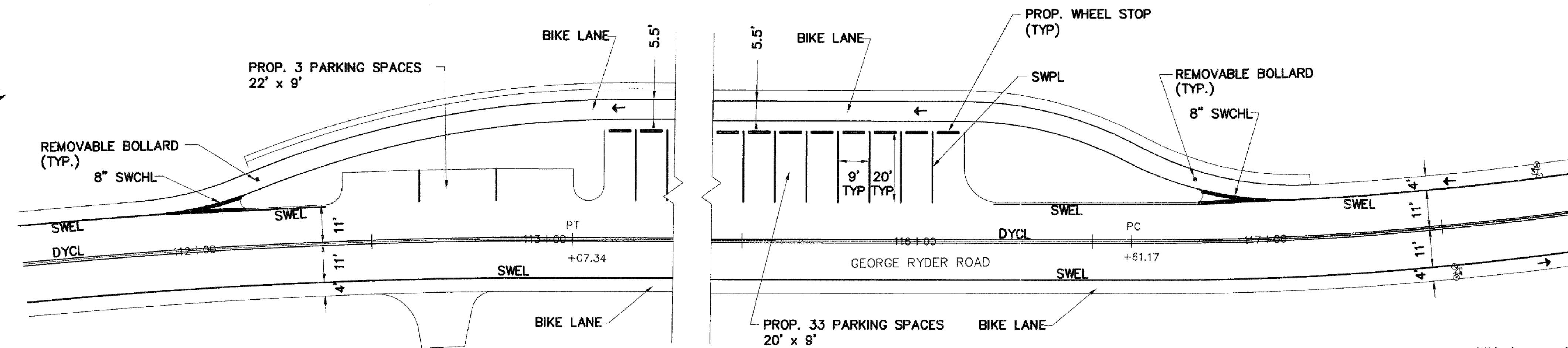
5 FOR BIKE PATH CROSSING DETAIL
 SHEET FOR BOLLARD INSTALLATION
 PLINE WITH R1-1 LOCATION AS SHOWN
 -1 250' FROM INTERSECTION (AS SHOWN) ON ROADWAY
 -1A 250' FROM INTERSECTION ON BIKEPATH
 -1 5' FROM PROP. BOLLARD LOCATION

SWCHL - 8" SINGLE WHITE CHANNEL LINE
SWPL - 4" SINGLE WHITE PARKING LINE
DYCL - 4" DOUBLE YELLOW CENTER LINE

1. SEE SHEET 5 FOR BIKE PATH CROSSING DETAIL
2. SEE DETAIL SHEET FOR BOLLARD INSTALLATION
3. INSTALL STOPLINE WITH R1-1 LOCATION AS SHOWN
4. INSTALL W11-1 250' FROM INTERSECTION (AS SHOWN) ON ROADWAY
5. INSTALL W3-1A 250' FROM INTERSECTION ON BIKEPATH
6. INSTALL R1-1 5' FROM PROP. BOLLARD LOCATION

N: \CAD\LAND PROJECTS\1806_BSC\FINAL-100P\PLANS\34-36P\NEWARK.DWG

WESTON & SAMPSON ENGINEERS INC.



STA 123+78.07 GEORGE RYDER ROAD CONST. @ BACK =
STA 123+78.56 RAIL TRAIL CONST. @ AHEAD

STA 110+59.23 GEORGE RYDER ROAD CONST. @ =
STA 110+59.23 RAIL TRAIL CONST. @

LEGEND

SWCHL - 8" SINGLE WHITE CHANNEL LINE
SWPL - 4" SINGLE WHITE PARKING LINE
SWEL - 4" SINGLE WHITE EDGE LINE
DYCL - 4" DOUBLE YELLOW CENTER LINE

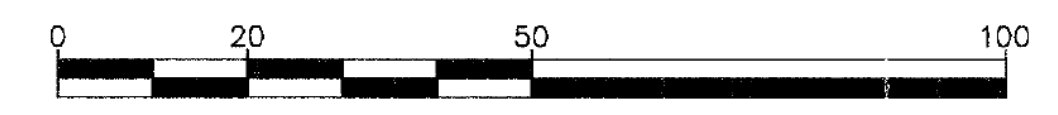
- NOTES:
1. SEE SHEET 5 FOR BIKE PATH CROSSING DETAIL
 2. SEE DETAIL SHEET FOR BOLLARD INSTALLATION
 3. INSTALL STOPLINE WITH R1-1 LOCATION AS SHOWN
 4. INSTALL W11-1 250' FROM INTERSECTION ON ROADWAYS (AS SHOWN)
 5. INSTALL W3-1A 250' FROM INTERSECTION ON BIKEPATH

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	36	98
PROJECT FILE NO. 601466				

CHATHAM RAIL TRAIL					
STATE	FED. AID.	PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-001	5(062)X	2002	36	98
PROJECT FILE NO. 601466					
PAVEMENT MARKINGS PLAN					

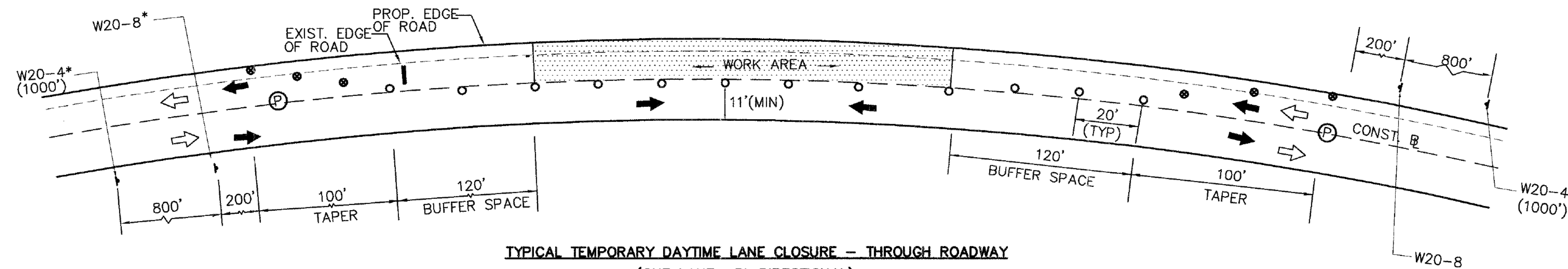
1. SEE SHEET 5 FOR BIKE PATH CROSSING DETAIL
2. SEE DETAIL SHEET FOR BOLLARD INSTALLATION
3. INSTALL STOPLINE WITH R1-1 LOCATION AS SHOWN
4. INSTALL W11-1 250' FROM INTERSECTION (AS SHOWN) ON ROADWAY
5. INSTALL W3-1A 250' FROM INTERSECTION ON BIKEPATH
6. INSTALL R1-1 5' FROM PROP. BOLLARD LOCATION

SWCHL - 8" SINGLE WHITE CHANNEL LINE
SWPL - 4" SINGLE WHITE PARKING LINE
DYCL - 4" DOUBLE YELLOW CENTER LINE

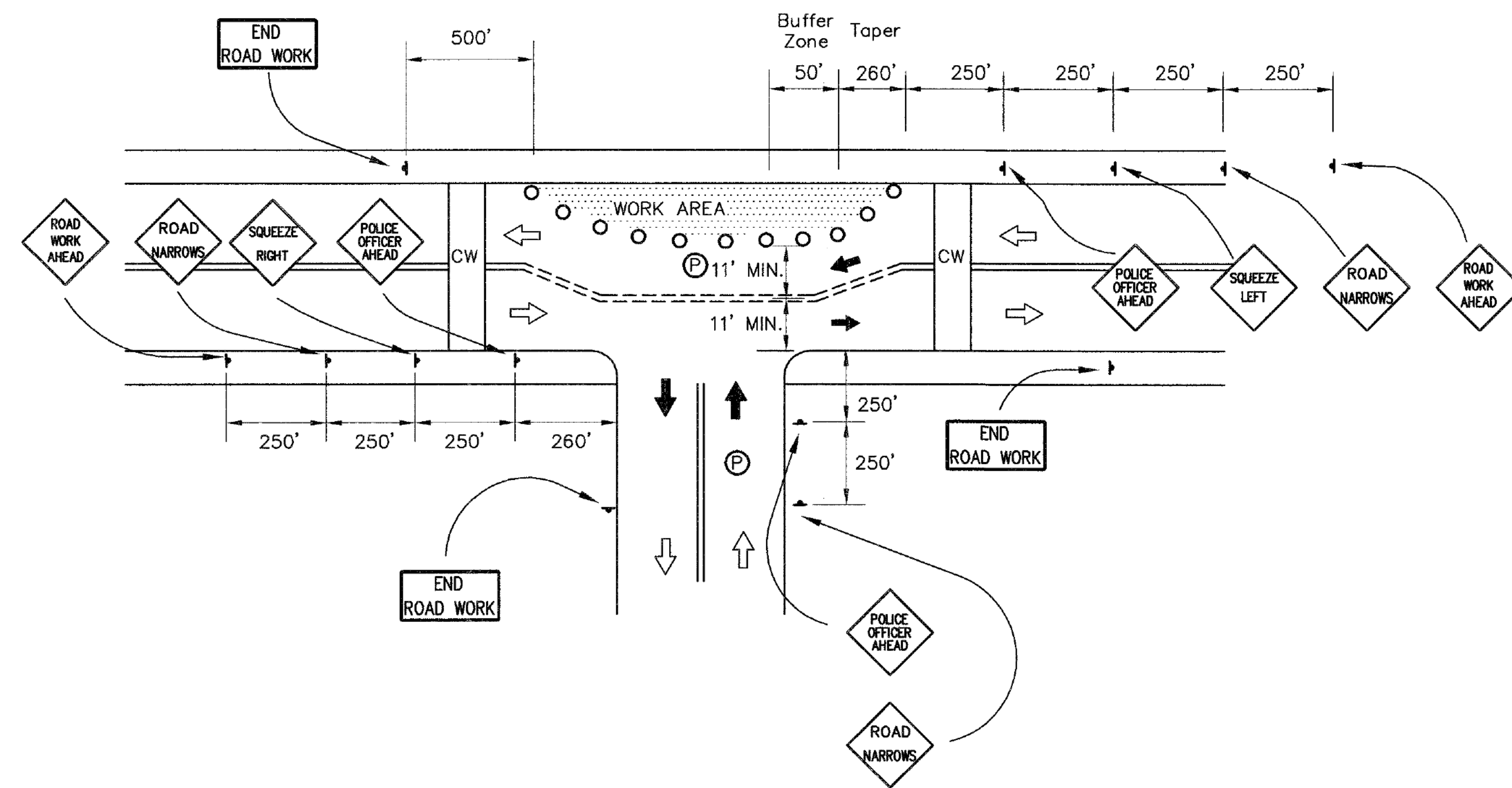


N:\CAD\LAND PROJECTS\1806_BSC\FINAL-100%PLANS\34-36PAVEMARK.DWG
IN CHARGE: _____
DRAWN BY: _____ DATE: _____
CHECKED BY: _____ DATE: _____

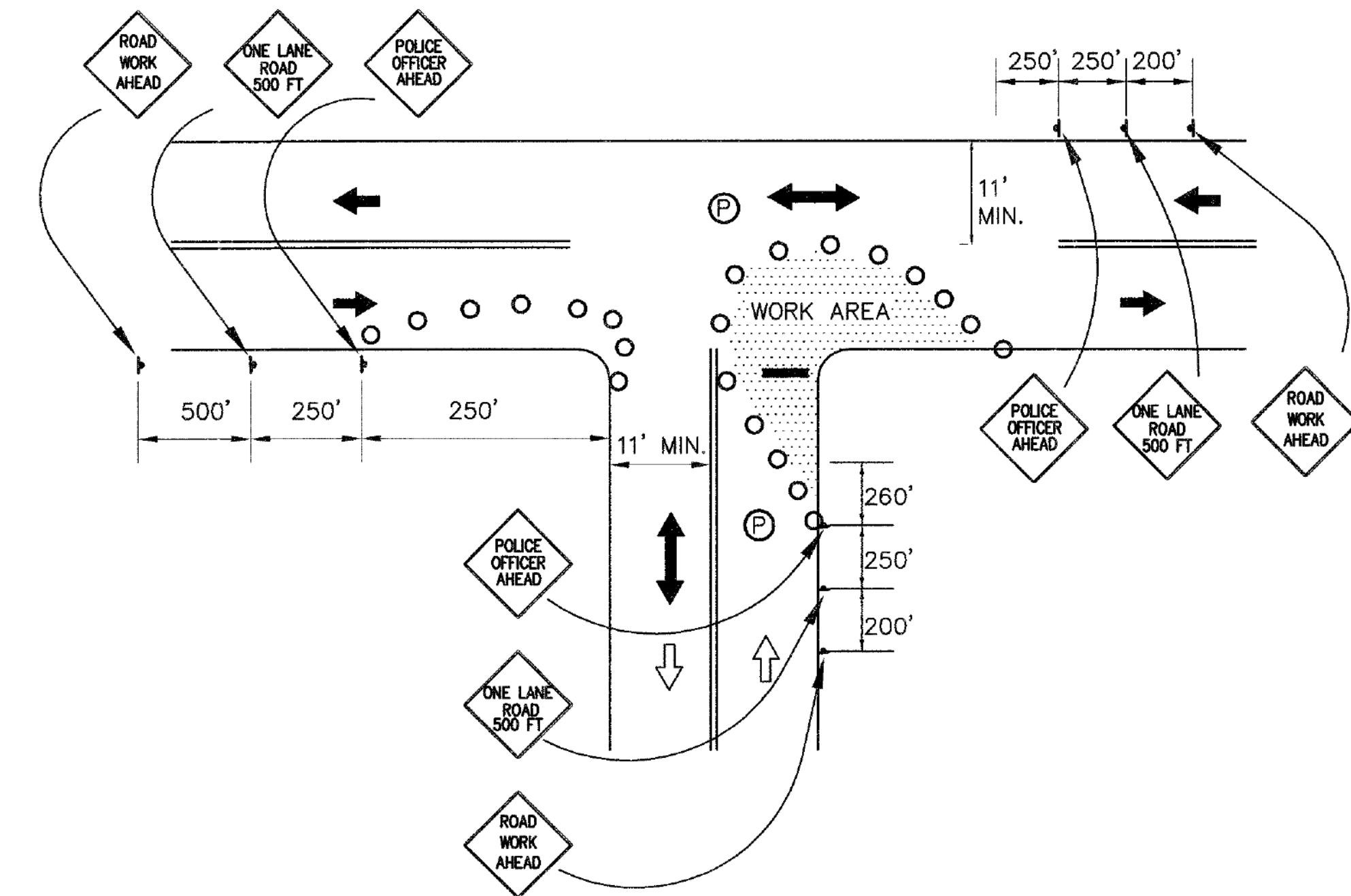
WESTON & SAMPSON ENGINEERS INC.



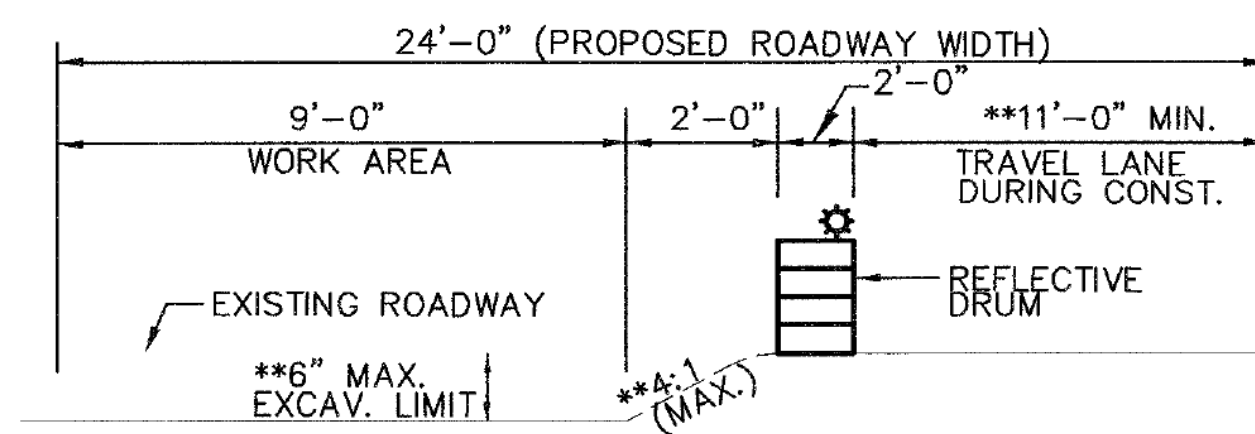
TYPICAL TEMPORARY DAYTIME LANE CLOSURE - THROUGH ROADWAY
(ONE LANE--BI-DIRECTIONAL)
NOT TO SCALE



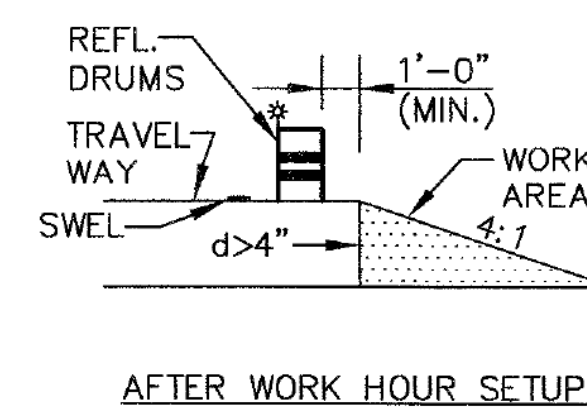
TYPICAL MINOR ENCROACHMENT
TWO LANE OPERATION



TYPICAL INTERSECTION LANE CLOSURE
ONE LANE BI-DIRECTIONAL OPERATION



DETAIL AT CUT AREAS
NOT TO SCALE



NOTES:

1. ADVANCE WARNING SIGN PLACEMENT AND TAPER LENGTH TO BE ADJUSTED ACCORDING TO STREET CONDITIONS AND DRIVEWAY OPENINGS.
2. NO STREET PARKING PERMITTED DURING STAGE CONSTRUCTION.
3. CONFLICTING PAVEMENT MARKINGS SHALL BE REMOVED.
4. W20-8 AND W20-4 SHALL BE TAKEN DOWN OR COVERED AFTER EACH WORKING DAY OR WHEN OTHERWISE NOT APPLICABLE, OR WHEN POLICE OFFICERS ARE NOT PRESENT TO DIRECT TRAFFIC.
5. W20-1 (AHEAD) SIGNS TO BE PLACED ON APPROACHES AS DIRECTED BY THE ENGINEER.
6. NO SIGNS SHALL BE ATTACHED TO DRUMS OR CONES. ALL CONSTRUCTION SIGNS SHALL BE ATTACHED TO THEIR OWN INDEPENDENT SUPPORTS.
7. ACCESS TO ABUTTERS SHOULD REMAIN ALL TIMES.

8. THE CONTRACTOR SHALL NOT WORK DURING THE PEAK HOURS OF TRAFFIC OR AS DIRECTED BY THE ENGINEER.
9. PAVEMENT MARKINGS NO LONGER APPLICABLE WHICH MIGHT CREATE CONFUSION SHALL BE OBLITERATED.
10. TEMPORARY DETOUR SCHEMES (IF NECESSARY) MUST BE SUBMITTED TO THE ENGINEER FOR APPROVAL 72 HOURS PRIOR TO IMPLEMENTATION.
11. NO DIFFERENCE IN ROADWAY LANE ELEVATION WILL BE ALLOWED AT THE END OF THE WORK DAY.
12. ALL TEMPORARY PAVEMENT MARKING SHALL BE MAINTAINED IN LONG TERM WORK AREAS AND SHALL MATCH AND MEET THE MARKINGS IN PLACE AT BOTH END OF THE WORK AREA.
13. PEDESTRIANS SHOULD BE PROVIDED WITH ACCESS AND SAFE PASSAGE THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE AT ALL TIMES.

LEGEND

- ⊗ REFLECTIVE DRUM WITH FLASHER
- REFLECTIVE DRUM WITH LIGHT
- ➡ TRAFFIC FLOW DURING CONSTRUCTION
- ➡ NORMAL TRAFFIC FLOW
- Ⓟ TRAFFIC OFFICER
- PORTABLE BREAKAWAY BARRICADE TYPE III
- Ⓢ TRAFFIC SIGNS
- ➡➡➡ ARROW PANEL
- ▨ WORK AREA

TRAFFIC SIGN SUMMARY

CHATHAM CHATHAM RAIL TRAIL				
STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	38	98
PROJECT FILE NO. 601466				
SIGN SUMMARY				

IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		RADIUS	BORDER SIZE (INCH)	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET	IDENTIFI- CATION NUMBER	SIZE OF SIGN		TEXT	TEXT DIMENSIONS (INCHES)			NUMBER OF SIGNS REQUIRED	COLOR		RADIUS	BORDER SIZE (INCH)	POST SIZE AND NUMBER REQUIRED	AREA IN SQUARE FEET
	WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER						WIDTH	HEIGHT		LETTER HEIGHT	VERTICAL SPACING	ARROW RTE. MKR.		BACK- GROUND	LEGEND BORDER				
W11-1	30"	30"		①	①		25	①	①		①	P-5 25	156.25	D3-2	VAR.	12"	MEETINGHOUSE RD.	6"/4"	3" 3"		1	①	①		①	-	EACH
W16-7P	12"	9"					2					P-5 2	1.5	D3-3	VAR.	12"	SAM RYDER RD.	6"/4"	3" 3"		1					-	EACH
W3-1A	18"	18"					10					P-5 10	22.5	D3-4	VAR.	12"	GEORGE RYDER RD.	6"/4"	3" 3"		2					-	EACH
W16-1	24"	30"	SHARE THE ROAD	4" 4"	3" 3" 3"		5	YELLOW (REFL.)	BLACK (NON- REFL.)		BLACK (NON- REFL.) 10	MOUNT W/W11-1	20	D3-5		12"	WHITE POND RD.	6"/4"	3" 3"		1					-	EACH
R1-1	30"	30"	STOP	①	①		21	①	①		①	P-5 21	131.25	D3-6		12"	WILFRED RD.	6"/4"	3" 3"		2					-	EACH
R5-3	24"	24"	NO MOTOR VEHICLES				14					P-5 14	56	D3-7		12"	OLD QUEEN ANNE RD.	6"/4"	3" 3"		2					-	EACH
D11-1	24"	18"	 BIKE ROUTE				23	GREEN REFL.	WHITE REFL.		WHITE REFL. 15	P-5 (23) MOUNT 23/W RD SERIES SIGNS	69	D3-8		12"	STEPPING STONES RD.	6"/4"	3" 3"		1					-	EACH
M4-11	12"	4"	BEGIN				4					MOUNT W/D11-1	1.32	D3-9		12"	CROWELL RD.	6"/4"	3" 3"		2					-	EACH
M4-12	12"	4"	END				1					MOUNT W/D11-1	.33	D3-1	VAR.	12"	MORTON RD.	6"/4"	3" 3"		1					-	EACH
R3-16A	24"	30"	 LANE ENDS				2					P-5 2	10	W1-2(L)	18"	18"		①	①		4					P-5 5	9
R3-16	24"	30"	 LANE AHEAD				2					P-5 2	10	W1-2(R)	18"	18"					4					P-5 4	9
M7-1(R)	12"	9"					3					MOUNT W/D11-1	2.25	W7-5	18"	18"					1					P-5 1	2.25
M7-1(L)	12"	9"					4					MOUNT W/D11-1	3	W1-4(L)	18"	18"					2					P-5 2	4.5
M7-2	12"	9"					2					MOUNT W/D11-1	1.5	W1-2(L) STA 165+00	30"	30"					1					P-5 1	6.25
M7-5	12"	9"					12					MOUNT W/D11-1	9.0	W1-2(R) AT WHITE POND ROAD	30"	30"					1					P-5 1	6.25
M7-6(R)	12"	9"					1					MOUNT W/D11-1	0.75														

- ① SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2000 MILLENNIUM EDITION (1979 STD. HWY. SIGNS) FOR LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR (ALSO SEE SECTION M9.30.0 TYPE III MHD 1995 STANDARD SPECIFICATION).
- ② SEE MASS. HIGHWAY DEPARTMENT STANDARD DRAWINGS FOR SIGNS AND SUPPORTS 1990.

CHATHAM
CHATHAM RAIL TRAIL

STATE	FED. AID. PROJ. NO.	FISCAL YEAR	SHEET NO.	TOTAL SHEETS
MASS.	CM-0015(062)X	2002	39	98
PROJECT FILE NO. 601466				

[illegible]

- ① SEE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES 2000 MILLENNIUM EDITION (1979 STD. HWY. SIGNS) FOR LATEST SPECIFICATIONS ON TEXT DIMENSIONS AND COLOR (ALSO SEE SECTION M9.30.0 TYPE III MHD 1995 STANDARD SPECIFICATION).
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